



PHD

An empirical framework for evaluating, implementing and managing a value-based supply chain strategy

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**AN EMPIRICAL FRAMEWORK FOR
EVALUATING, IMPLEMENTING AND MANAGING
A VALUE-BASED SUPPLY CHAIN STRATEGY**

**Submitted by Andrew John Swan
for the degree of PhD
at the University of Bath
2003**

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**An Empirical Framework for Evaluating, Implementing and Managing a
Value-Based Supply Chain Strategy**

by

Andrew John Swan

PhD in Management

University of Bath

May 2003

Abstract

This study researches how firms manage value-based supply chain strategies. It focuses on purchasing and supply management's (PSM) role in the management of those strategies. Four topic areas are explored:

- How the term “value” is defined and interpreted across a value chain.
- Whether the definition or interpretation of value changes based upon one's assumed value chain perspective (i.e., customer- versus supplier-facing).
- Whether the definition or interpretation of value changes at different operating / management levels of the value chain.
- How firms might improve their management of value as evidenced by uninterrupted flows of value across their respective value chains.

In order to explore these topic areas this author examines the set of management processes used by individuals inside and outside PSM (the unit of analysis) to implement and achieve value-based strategies.

The author advances an empirical framework – the integrated value process – based upon (a) a conceptual model describing how value is conceptualised, configured and implemented across a triad of firms (i.e., the customer, the focal organisation, and the supplier), (b) a high level definition of value and (c) a set of five value “first principles”, all of which are derived from the literature. The author empirically tests the conceptual model both quantitatively and qualitatively across a range of firms in the UK and the US. Research methods employed include a semi-structured focus group, several unstructured interviews of subject matter experts, a large-scale survey questionnaire, and in-depth case studies of six firm triads.

The study advances the concept of “value gaps”, i.e. differing definitions and interpretations of the term value that lead to goal misalignment and conflict. The research documents instances of such value gaps. The findings suggest that interruptions in value flows across a value chain arise when participants operate with an inadequate understanding of value. To help companies address these value gaps, this thesis advances an empirical framework for evaluating, implementing and managing a value-based supply chain strategy.

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Glossary of terms

Appreciative systems: A model of human behaviour, described by Vickers (1965), which posits managers set standards and norms rather than goals. The model asserts “there is normally no ultimate source for the standards by means of which what is noticed is deemed good or bad, important or unimportant, relevant or irrelevant, and so on. The source of the standards is the previous history of the system itself. In addition, the present operation of the system may modify its present and future operation through its effect on the standards. ... An appreciative system is a process whose products – cultural manifestations – condition the process itself” Checkland and Holwell (1998). See Section 4.1.

Balanced Scorecard: A conceptual framework, advanced by Kaplan and Norton (1992), which aims to strike the proper “balance between external measures for shareholders and customers, and internal measures of critical business processes, innovation, and learning and growth. The measures are balanced between the outcome measures – the results of past efforts – and the measures that drive future performance. And the scorecard is balanced between objective, easily quantified outcome measures and subjective, somewhat judgmental, performance drivers of the outcome measures” Kaplan and Norton (1996:10). See Section 3.3.

Business System: A conceptual model, developed by the consultancy McKinsey & Company, which depicts the firm as a series of broad functions (e.g., research and development, manufacturing, marketing, distribution, etc.) whose combined purpose is threefold: to create, make and sell a product. By analyzing how each of these functions is performed relative to its competitors, a firm could gain useful insights into its relative competitive performance. See Section 4.5.

Competitive advantage: The unique configuration of interlinked activities, actor bonds and critical resources the firm uses to deliver a superior value proposition to enough customers at a low enough cost to generate wealth. See Section 2.1.

Competitive strategy: The set of actions taken by management to gain competitive advantage by increasing the degree of congruence between a firm and its adopted value-based approach to competition. See Section 2.2.

Cross-functional management: A management process designed to encourage and support interdepartmental communication and cooperation throughout a company – as opposed to command and control through narrow departments or divisions. The purpose is to attain such company-wide targets as quality, cost, and delivery of products by optimizing the sharing of work (Rich and Hines (1997:83)). See Section 5.3.

Double-loop learning: The second of the two ways of learning described by Argyris (1982) whereby a mismatch between intentions and outcomes is identified and it is corrected; that is, a mismatch is turned into a match. Double-loop learning occurs when mismatches are corrected by first

examining and altering the governing variables and then the actions. As the governing variables are not static (i.e., the predetermined goals and objectives may change), double-loop learning is associated with second-order change. See Section 4.2.

Firm: A collection of stakeholder groups with multiple and (likely) conflicting objectives; these stakeholder groups negotiate an agreed upon set of objectives which collectively all individuals satisfy rather than maximize. See Section 3.1.

First order change: An inherently conservative viewpoint in which strategic 'change is a disturbance to be corrected' i.e., equilibrium is to be maintained by pursuing mutations of strategy. "Like a thermostat, the strategy cuts in automatically whenever anything moves outside the accepted range, and acts in a self-regulating way, that is homeostatically, to counteract the change" Bate (1994:35). First order strategic change maps very neatly to hard systems thinking, since change occurs whenever current performance deviates from the target, and only then. See Section 4.2.

Hard systems thinking: The branch of systems thinking generally associated with Simon which is concerned primarily with problem solving. It usually concerns problems with predetermined goals and objectives. The hard systems perspective is that the world itself is systemic (i.e., composed of multiple, determinate systems) and that it can be rationally and objectively engineered to achieve particular ends. In a 'hard' problem-solving system, the facts are extrinsically derived; participants are concerned with the solution but the solution has no impact on external reality. See Section 4.1.

Hoshin Kanri: The Japanese expression for an organizing framework for the strategic management process See Section 2.5.

Lean first principles: Five principles advanced by Womack and Jones (1996:10) which can be applied to most production situations: "Precisely specify value by specific product, identify the value stream for each product, make value flow without interruptions, let the customer pull value from the producer, and pursue perfection". See Section 4.6.

Muda: The Japanese term for waste. See Section 5.2.

PSM: Purchasing and supply management. For purposes of this research PSM includes the following activities: supplier identification, certification and development; strategic sourcing; indirect and direct materials approval and acquisition.

Paradigm: The combination of research ontology, epistemology, and methodology adopted by a researcher. See Section 7.1.

Process: A specific ordering of work activities across time and place, with a beginning, an end, and clearly identified inputs and outputs – a structure for action (Davenport (1993)). See Section 2.3.

Re-engineering: The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed (Hammer and Champy (1993)). Three characteristics of radical process redesign are (a) a focus on key business processes rather than functional activities, (b) an emphasis on cross-functional, continuous workflows; and (c) an alignment of processes to improve service to the end customer. See Section 5.3.

Second order change: An inherently radical viewpoint in which strategic change is a transformations of strategy. “Transformations of the strategy in use [occur when] the [change] process is interrupted by a frame-switch from one type of strategy to another (S_1 to S_2 below); the evolutionary chain is broken; there is discontinuity and variance of form”. Second order strategic change maps very neatly to soft systems thinking which Checkland and Holwell (1998:47) characterize as “predicated on gaining insight and understanding”. See Section 4.2.

Single-loop learning: The first of the two ways of learning described by Argyris (1982) whereby an organization achieves what is intended; that is, there is a match between its design for action and the actuality or outcome. Single-loop learning occurs when matches are created, or when matches are corrected by changing actions. As the governing variables are static (i.e., the predetermined goals and objectives do not change), single-loop learning is associated with first-order change. See Section 4.2.

Soft systems thinking: The branch of systems thinking generally associated with Vickers which is concerned primarily with the process of collective sense-making or meaning attribution by individuals in organizations; it usually concerns problems in which the goals and purposes of the system are uncertain. The soft systems perspective is that the world is complex, confusing, and indeterminate, but the process of sense-making (i.e. inquiry) is systemic and can be thought of as a learning system. In a ‘soft’ learning-system, participants concern themselves with the inquiry process; their participation impacts, influences and changes the process they are using. See Section 4.1.

Stakeholder theory: A school of thought which maintains that the objectives of the company should be derived by balancing the conflicting claims of the various ‘stakeholders’ in the firm, managers, workers, stockholders, suppliers, vendors (Ansoff (1965)). See Section 3.2.

Strategic alignment: The degree of congruence between a firm’s strategic management process and its adopted value-based approach to competition See Section 2.4.

Strategic management process: The process of ordering a firm's internal and external activities, resources and actors in accordance with the firm's competitive strategy. See Section 2.3.

Strategic transformation: The process of reconfiguring (value as a verb) the value-adding activities within a firm's value stream in order to improve the translation of customer value (value as an adjective) into value offerings (value as a noun).

Supply chain: An alternative name for the value chain.

Systems thinking: The field of study investigating the behaviour of systems, i.e. "sets of elements connected together which form a whole, this showing properties which are properties of the whole, rather than properties of its component parts" Checkland (1993:3). The essence of systems thinking is encapsulated by Ansoff's reflection on synergy, i.e. the whole (i.e., the system) is greater than the sum of its parts. See Section 4.1.

Total Cost of Ownership (TCO): A cost management approach that explicitly recognizes cost factors in addition to price as part of the cost of doing business with a particular supplier. ... At a minimum, any TCO approach should include transportation costs, receiving costs, quality costs (inspection, rework, reject costs), purchasing administrative expenses, including management time, and of course, the cost of the purchased item (Ellram (1993)). See Section 3.1.

Value (as a verb): The process used by two or more individuals (a) to understand the underlying variables (e.g., vision and mission) governing their actions; (b) to identify matches-mismatches between the individuals' expectations of those variables that enable/prevent joint action; and (c) to adjust expectations so that a match is found (thereby enabling action). See Section 5.3.

Value activities: The physically and technologically distinct activities a firm performs as described by Porter (1985). These are the building blocks by which a firm creates a product valuable to its buyers. See Section 5.5.

Value-add: An activity which does one of two things. It may be a value stream activity which links value as a noun (the 'value' that is added in the production function) to value as an adjective ('value' as seen in the eyes of the ultimate customer). Or it may represent value's usage as a verb: resetting firm goals and objectives thereby indicating the presence of 'double-loop' learning and 'second order' change. If an activity is neither of these, it is either necessary but non-value adding (NNVA) or non-value adding (NVA) and cannot be part of the value stream (further to Womack and Jones (1996)'s definition). Note that under this definition, a value-adding activity is more than merely augmenting production cost (value as a noun). See Section 5.2.

Value alignment: The realization of customer value i.e., the effective translation of customer value into value offerings. Value alignment is the state of uninterrupted value flow within a firm's value stream. The absence of

value gaps characterises uninterrupted value flows and hence value alignment. See Section 5.3.

Value chain: A conceptual model, developed by Porter (1985), which describes the set of interconnected value activities occurring within a firm. See Section 4.5.

Value management (system): The collection of processes used by a firm to co-ordinate value-adding activities within its value stream(s) in order to increase value alignment.

Value misalignment: The opposite state of value alignment, i.e. the ineffective translation of customer value (value as an adjective) into value offerings (value as a noun). Value misalignment is the state of interrupted value flow within a firm's value stream. The presence of value gaps characterises interrupted value flows and hence value misalignment. See Section 5.3.

Value offering: The physical and 'in-person(s)' embodiment of assets made up of knowledge and experience, in themselves the result of myriad activities performed by many people dispersed in time and space. Assets and resources imply the storage of activities which have been configured for a particular purpose, for a particular actor in a given location at a given time (Normann and Ramírez (1994)). See Section 4.6.

Value proposition: The entire set of resulting experiences, including price, that an organization causes some customers to have (Lanning (1998)).

Value stream: The set of all the specific actions required to bring a specific product (whether a good, a service, or increasingly, a combination of the two) through the three critical management tasks of any business: the problem-solving task running from concept through detailed design and engineering to product launch, the information management task running from order-taking through detailed scheduling to delivery, and the physical transformation task proceeding from raw materials to a finished product in the hands of the customer (Womack and Jones (1996)).

Value stream activities: Those select value activities serving as a 'translation' mechanism between value as an adjective (i.e., customer preferences) and value as a noun (i.e., value offering). See Section 5.5.

Value system: The sum of the value chains of the firm, its suppliers, its customers, and its channels to those customers. See Section 4.5.

Waste: Any activity (or lack of activity) which does not add value in the eyes of the customer. The Toyota Production System lists seven types of waste: overproduction, waiting, transportation, inappropriate processing, unnecessary inventory, unnecessary motion and defects.

Ithaka

By C. P. Cavafy*

When you set out for Ithaka
ask that your way be long,
full of adventure, full of instruction.
The Laistrygonians and the Cyclops,
angry Poseidon—do not fear them:
such as these you will never find
as long as your thought is lofty, as long as a rare
emotion touch your spirit and your body.
The Laistrygonians and the Cyclops,
angry Poseidon—You will not meet them
unless you carry them in your soul,
unless your soul raise them up before you.

Ask that your way be long.
At many a summer dawn to enter
— with what gratitude, what joy—
ports seen for the first time;
to stop at Phoenician trading centres,
and to buy good merchandise,
mother of pearl and coral, amber and ebony.
And sensuous perfumes as lavishly as you can;
to visit many Egyptian cities,
to gather stores of knowledge from the learned.

Have Ithaka always in your mind.
Your arrival there is what you are destined for.
But don't in the least hurry the journey
Better it last for years,
so that when you reach the island you are old,
rich with all you have gained on the way,
not expecting Ithaka to give you wealth.

Ithaka gave you the splendid journey.
Without her you would not have set out.
She hasn't anything else to give you.

And if you find her poor, Ithaka hasn't deceived you.
So wise have you become, of such experience,
that already you'll have understood what these Ithakas mean.

* Savidis, George (ed.) *Collected Poems of C.P. Cavafy*. Princeton, New Jersey: Princeton University Press, 1975:67-69.

CHAPTER ONE:
INTRODUCTION, CONTEXT AND FIVE VALUE
FIRST PRINCIPLES

1.0 Purpose

The purpose of this chapter is to provide an overall introduction to this thesis's research. To accomplish this objective, the author will:

1. Outline the organisation of the thesis;
2. Describe the scope and limitations of the thesis;
3. Examine increasing references to value in the context of supply management;
4. Discuss the literature review process;
5. Introduce the definition of value used in this thesis derived from the literature;
6. Introduce the five value first principles derived from the literature that will guide this author's research.

1.1 Organisation of the thesis

This thesis is structured into nine chapters clustered into five groups as illustrated in Figure 1A:

Figure 1A: Thesis organisation

Chapter One Introduction & context	Context of research Literature overview Introduction to definition of value from literature Introduction to value 'first principles' from literature
Chapters Two to Six Discussion of literature and exposition of five value 'first principles'	Principle One: Align purchasing and corporate strategies Principle Two: Balance multiple objectives Principle Three: Adopt a systems view Principle Four: Ensure value flows across the system Principle Five: Use ultimate customers' perceptions to understand value
Chapter Seven Research methodology	Epistemological discussion Research questions and hypotheses Introduction to conceptual model Selected research approach and discussion of potential pitfalls
Chapter Eight Research analysis and findings	Discussion of survey results Discussion of case study results
Chapter Nine Research conclusions and implications	Conclusions and reflections An Empirical framework to evaluate, implement, and monitor value-based supply strategies Research implications and future research prospects
Bibliography	

In Chapter One the author provides a broad overview of the main topic areas explored in this study. He defines the term value as used in this thesis and presents five value “first principles” that inform his research. Chapters Two through Six review and discuss in considerable detail the academic literature upon which each of the five first principles is based.

Chapter Seven presents a philosophical discussion of the nature of management research particularly in the context of *managing value-based strategies*. The thesis research questions are developed and related to the prior literature review. The author introduces the conceptual model that guides his research. He outlines the selected research approach and discusses the rationale for its selection.

Chapter Eight documents the empirical findings of the research. The author reviews the results of a survey questionnaire completed by 77 firms in the UK and US. The author also presents key findings gleaned from over one hundred hours of interviews with case study participants in six firm triads – a focal organisation with one or more of its customers and one or more of its suppliers – conducted in the UK and US. Chapter Nine returns to the research questions in light of the empirical findings, discusses the implications of this study and outlines potential future research. With this high level presentation of the organisation of this thesis, the author now turns to a discussion of the purpose of this study.

1.2 Introduction, scope of the study and limitations of the research

This study researches how firms manage value-based supply chain strategies¹. It focusses on purchasing and supply management’s (PSM)² role in the management of those strategies³. Four main topic areas are explored:

- How the term “value” is defined and interpreted across a value chain.
- Whether the definition or interpretation of value changes based upon one’s assumed value chain perspective (i.e., whether one is customer-facing versus supplier-facing).
- Whether the definition or interpretation of value changes at the different operating / management levels of the value chain.
- How firms might improve their management of value as evidenced by uninterrupted flows of value across their respective value chains.

¹ See Section 7.2 where this author reviews the thesis’s research objective and research questions in greater detail.

² The abbreviation PSM is used throughout the study. It includes the following areas: supplier identification, certification and development; strategic sourcing; indirect and direct materials approval and acquisition.

³ See Section 1.3 where this author discusses value in the context of supply management.

In order to explore these topic areas this author examines the set of management processes used by individuals inside and outside PSM (the unit of analysis) to implement and achieve value-based strategies.

The author advances an empirical framework⁴ – the integrated value process – that is based upon (a) a conceptual model⁵ describing how value is conceptualised, configured and implemented across a triad of firms (i.e., the customer organisation, the focal organisation, and the supplier organisation), (b) a high level definition of value⁶ and (c) a set of five value “first principles”⁷, all of which are derived from the literature. The author empirically tests the conceptual model both quantitatively and qualitatively across a range of firms in the UK and the US.

Any model necessarily excludes elements in order to focus on others. This is true of this thesis’s empirical framework. This author selected literature⁸ that was related to the thesis’s research subject – the management of value based strategies⁹ and PSM’s role in the management of those strategies – based upon the author’s specific research questions. This interactive process – research literature informing research questions requiring further reading – iterated during the first half of the five years of this study¹⁰. Ultimately this author winnowed down the research questions rendering particular subject areas less immediately informative to this thesis than others.

As a result of this coalescence, this thesis excludes a detailed review and discussion of the following related subject areas:

- Creation and management of supply networks;
- Cultural receptivity of lean thinking and its principles;
- Organisational, cultural change processes;
- Cultural assimilation and the individual’s adoption of group norms and standards;
- Psychological factors in decision-making;
- Semiotics and semiology.

⁴ See Section 9.4 where this author presents the integrated value process framework.

⁵ This author advances the conceptual value gaps model in Section 7.4.

⁶ See Section 1.5.

⁷ This author discusses value “first principles” in Section 1.6

⁸ See Section 1.4 where this author describes the process used to conduct the literature review.

⁹ This author discusses value-based strategies in Section 2.2.

¹⁰ This interactive, iterative process front-loaded the research approach (Figure 7H), the rationale for which is discussed in Section 7.5.

The exclusion of these subject areas in no way indicates their lesser importance to value-based management within PSM¹¹. Rather the exclusion reflects this author's constraints of time and resources as well as the overall absence of robust foundational thinking on value in the supply management literature. It is this author's intent to contribute such thinking to fill the knowledge gap that exists in the purchasing and supply management literature. The author now turns to a discussion of that gap.

1.3 Value in the context of supply management

"Value" appears to be a key determinant of purchasing and supply management (PSM)'s strategic role in organisations. The term "value" is increasingly used as a qualifier of the purchasing activity, function or process by multiple authors in the literature. For example, Dumond (1994) and Telgen and Sitar (2001) advance the concept of value-based purchasing. They use the same definition: 'Value-based purchasing focuses the decisions of the purchasing professional on the creation of value rather than on the traditional objectives of cost savings and efficiency' Dumond (1994:3). Unfortunately their description is tautological. The National Association of Purchasing Managers (NAPM)¹² in the U.S. employ the term value similarly in its Professional Development Series of texts ('which parallel the NAPM's Certification Program leading to the C.P.M. designation'). In volume 1 of the series Leenders and Flynn (1995) introduce "value-driven purchasing". Unfortunately the authors mention value solely in the context of Porter's value chain framework¹³; they do not define value-driven explicitly. Moreover, they fall trap to the same tautology outlined above:

The term value [1a] chain refers to all the transforming activities performed upon an input to provide value [1b] to a customer. The identification of this sequence of transactions is the first step in analyzing whether value [2a] is, in fact, added at every step and in finding better ways – better in quality, cost, timeliness, or value [2b]—to achieve customer satisfaction. [Comments added: note tautology within 1a and 1b, 2a and 2b] Leenders and Flynn (1995:4)

In volume 3 of the series Raedels (1994) introduces "value-focused supply management". Scheuing (1998) describes "value-added purchasing". By failing to define value adequately, the reader can rightly raise the question: 'How then

¹¹ Throughout the thesis in detailed footnotes this author refers the reader to pertinent academic literature on these related topics.

¹² Renamed The Institute of Supply Management (ISM) in 2000.

¹³ See Section 4.5 where this author discusses the value chain.

does this new kind of purchasing differ from the former (and presumably non-value-based / non-value-added / non-value-driven / non-value-focused) purchasing'?

What does value mean? Who defines it? What results when different groups within an organisation define value differently? Should organisations within a supply chain operate based upon a common definition of value? These questions are not answered in a systematic manner by the above authors. In fact, value management as a subject area in much of the purchasing literature can be characterised as, at best, suffering from a jumble of value definitions; or at worst, as liberally using an undefined 'buzz phrase'¹⁴.

The standalone term "value-add"¹⁵ is frequently referenced in the purchasing literature. Baily, Farmer et al. (1998) distinguish between reactive buying in companies where purchasing is viewed as a cost center versus proactive buying where purchasing "can *add value*". Van Weele (1984) notes that purchasing performance evaluation should include non-cost items to reflect:

A higher added value of the purchasing department to the firm. This higher added value might take the form of operating cost reductions, lower material prices, fewer rejects, better sourcing decisions, etc. Van Weele (1984:18)

Rajagopal and Bernard (1994) conclude that only purchasing departments that provide a "*value-added service*" will not be subcontracted. Smeltzer (1997) also uses the term "value-added" in recommending how purchasing can create greater influence in corporate strategic planning.

Value-added is a function of that which is "added up". Determining what constitutes the added value is contingent upon the situation and/or the perspective(s) of the individual(s) assessing the value. For example, Van Weele (1984) recommends using efficiency and effectiveness measures of value to

¹⁴ Bierck (1999:3) notes that "People have been adding value willy-nilly for a couple of years now, and the term will eventually fade into the background as new buzz phrases come into vogue. Yet because of its astonishing hyperbolic power, its momentum is far from spent. For those seeking to ennoble their endeavors and burnish their accomplishments, the possibilities are myriad, if not endless. Teachers will add value by teaching, plumbers by plumbing, and local telephone companies merely by providing service. Soon, babysitters will be adding value by changing diapers and retail establishments will add value by being open. Your car will add value by running, and your mechanic will add value by fixing it when it isn't. ... The next time your supervisor questions your work performance, try pointing out that you've added value daily by showing up at the office".

¹⁵ See Section 5.2 where this author discusses "value-add" in the context of the value chain.

determine purchasing's added value from the perspective of the internal customers of the function. Christopher (1998) recommends Economic Value Added (EVA) as a measure of value from the perspective of the shareholder; he holds that it should be used throughout the firm. Ellram (1993) suggests a Total Cost of Ownership (TCO) approach where measures of value are calculated from the management accountant's perspective. Cousins (1994) defines value as 'the result of any process or activity which enhances or makes the finished product or service more attractive to the consumer (or buyer)' thereby asserting just who is the final arbiter in the value chain of what is valuable.

Dumond (1994) acknowledges this contextual nature of value. She notes that 'the value of an item may change, given the particular situation, buyer or time period'. Cavinato and Dugas (1996) support this view:

Value is always a product of our perceptions and of the environment that created it, which means that it is always relative to and dependent upon the conditions that caused it to exist. Take something out of the environment that created it and you change its value.
Cavinato and Dugas (1996:57)

Unfortunately, Dumond (1994), Cavinato and Dugas (1996) and Telgen and Sitar (2001) do not clarify purchasing's specific role in the management of value across the entire value chain. For example, Cavinato and Dugas (1996) adopt the conceptualization of value developed in the value analysis/value engineering literature in the 1940s¹⁶: value equals the functionality of the product received by the user divided by the cost incurred to the user. Telgen and Sitar (2001) map other authors' definitions of value to purchasing's stages of evolution, but fail to define purchasing's role other than to posit its increasing effectiveness. See Figure 1B. The academic literature does provide a wealth of perspectives with which one may construct an integrated view of value management across the firm's value chain to examine purchasing's "value-added" role. This author now turns to the process he used to review the pertinent literature.

1.4 Literature review process

This author reviewed a wide range of academic literature in order to ground this thesis's research questions and conceptual model in accepted theory. The

¹⁶ See Section 6.3 for a further discussion of value analysis / value engineering.

literature mind map (Figure 1C) illustrates relevant supporting topic areas included in his literature review. This author developed the map guided by Hussey and Hussey (1997:84-85)'s description of various mind maps. The topic areas in Figure 1C were reviewed using the library holdings of three leading universities and two research centres: the University of Bath and the Centre for Research in Strategic Purchasing and Supply (CRiSPS) in the U.K. and Northwestern University, the University of Chicago, and the Center for Advanced Purchasing Studies (CAPS Research) in the U.S.

This author followed Adler (1940)'s recommendations for critical reading; Madansky (2000) restates Adler's approach for business literature:

[Adler's] method consists of increasingly critical levels of reading. Inspectional reading, the first and most elementary level, is where the reader simply attempts to ascertain what the author is saying. In the second level, analytical reading, the reader asks if what the author says is true. The final stage is what Adler calls syntopical reading. Here, the reader compares and contrasts the author's ideas to those of all of the other authors who have addressed the same question. ... The complete reader first addresses content, then quality, and finally context. This is serious reading indeed. Business people especially will benefit from such a formalized approach to assessing a book's worth and engaging its ideas. Madansky (2000:42)

Based upon such a critical reading, the author identified key concepts in the literature using a process outlined by Maxwell (1996:33-43). Further to Riley, Wood et al. (2000)'s description of typologies and classes in business literature this author categorized or classified these concepts. From this classification resulted a robust framework for defining value and a set of key first principles underlying the conceptual model. The author now turns to a discussion of the definition of value used in this thesis.

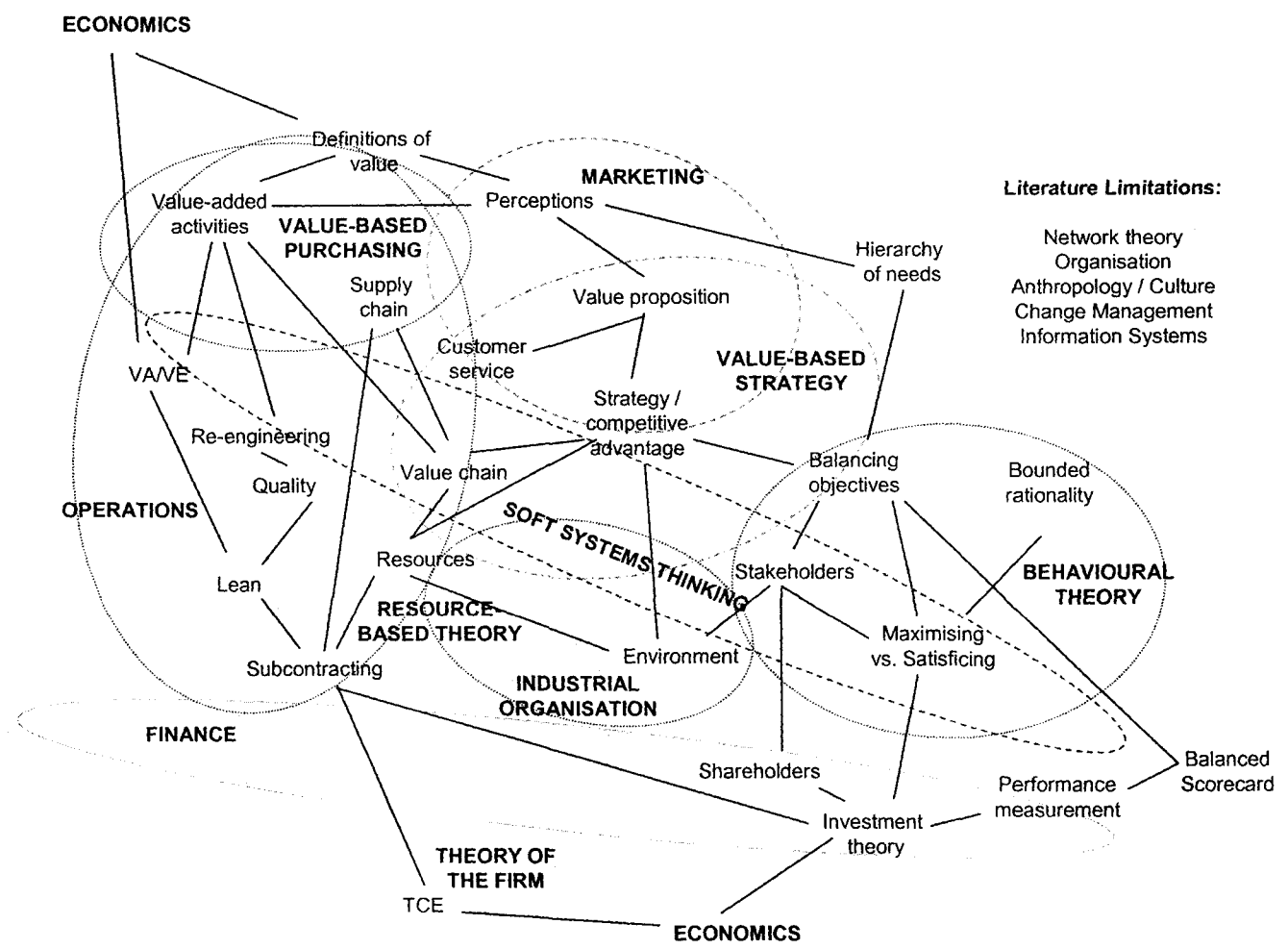
1.5 Definition of value used in this thesis

This author notes that value is used three different ways in the literature: (1) as a noun (e.g., the 'worth' of an object), (2) as an adjective (e.g., the utility an individual confers upon something), and (3) as a verb (e.g., the process of determining 'why one does things' one way versus another). These alternative uses of value correspond to definitions of value commonly used (a) in the production and accounting literature (i.e., value as a noun), (b) in the marketing literature (i.e., value as an adjective), and (c) in the learning/systems thinking

Figure 1B: Main value added by purchasing structured in purchasing development model
Source: Telgen and Sitar (2001:805)

Figure removed

Figure 1C: Literature mind map



literature (i.e., value as a verb). These alternative definitions, however, are not confined to one area, i.e. there is not a one-to-one mapping between definitions/uses and academic discipline. For example, the quality literature frequently employs all three definitions¹⁷.

This author asserts that much of the confusion about value stems from the use of incomplete definitions of value. Incomplete definitions result when one's perspective of value does not accommodate value's usage as an adjective, noun *and* verb. Interestingly Fawcett and Magam (2001) use the metaphor of language to describe the ensuing effects:

The unfortunate outcome is that the overall system—the firm or supply chain—is sub-optimized. A figurative tug of war breaks out ... as each group pulls the firm in the direction that it perceives is best. Overall costs are inflated and customer service is diminished even as each operating unit strives diligently to excel. When problems arise, someone else in the organization is always to blame for making unrealistic promises or imposing undue constraints. The mindset is often so pervasive that *managers from different areas of the company not only fail to recognize the value added in other areas but they often seem to speak entirely different languages*. [emphasis added] Fawcett and Magam (2001:66)

Much like trying to converse in English with a non-English speaker¹⁸ or speaking to an infant with a restricted understanding of grammatical rules, incomplete definitions of value often produce misunderstanding, confusion and undesirable outcomes¹⁹.

This is notably evident at the intersection of the firm's buy- and sell-sides. A business acts in two different ways: as a customer (of its suppliers) and as a supplier (to its customers). "The buy-side"²⁰ is generally associated with the

¹⁷ See Section 5.2.

¹⁸ Notwithstanding minor misunderstandings that may be encountered by the reader, the author (an American reading for a British Ph.D.) professes sufficient grasp of the English language! Recognising differences in usage and meaning of words commonly used by British and American speakers of English – two peoples separated by a common language – this author uses the Oxford English Dictionary to define his terms and to dictate his spelling in the main body of the thesis (whilst preserving the original spelling used by other authors). Although this thesis is based on empirical research conducted with both UK and US-based organisations, Anglo-American differences in value definitions are not explored. These differences are a rich area for future research since 'The American language has less regard than the British for grammatical form, and will bulldoze its way across distinctions rather than steer a path between them. It will casually use one form of word for another, turning nouns into verbs (so that an American may "author" a book, "host" a party, and "fund" a project), and verbs and nouns into adjectives' Moss (1995:7). Further to Moss (1995) and based on this thesis' definition of value (which includes value's usage as a noun, adjective and verb), the reader might expect that an American and an Englishman would conceptualise value very differently. This author does not test this hypothesis. See Section 6.2 for further discussion of the cultural determinants of value assessment.

¹⁹ Keeney (1992) also uses the metaphor of language to describe his recommended "value-focused thinking" decision-making process. 'The language of value-focused thinking is the common language about the achievement of objectives in any particular decision-making context ... [which] should facilitate communication and understanding' Keeney (1992:25). Keeney (1992) will be discussed further in Section 6.1.

²⁰ Financial broker-dealers in the capital markets usefully label these two roles respectively "the buy-side" and "the sell-side". This author employs this useful terminology in this thesis.

firm's purchasing and supply management organisation; "the sell-side", with the firm's sales and marketing organisation. From the firm's perspective, the buy-side is associated with the upstream value chain; the sell-side, with the downstream value chain. Much of the supply management literature defines value exclusively as a noun; much of the marketing literature defines value exclusively as an adjective. As a result this author posits a relationship between the value chain perspective and value definition held by an individual²¹. The reader should anticipate differences in value definitions across the value chain.

Yet value stream management²² asserts that value should flow uninterrupted across the value chain. Interruptions or misalignment of value flows, i.e. value gaps, are theoretically more likely when individuals across a firm's value chain hold incomplete definitions of value. Since alignment of value flows is one of the key principles underlying this author's conceptual model, the author now turns to a discussion of the five value "first principles" identified in the literature review.

1.6 Introduction to five value "first principles"

The academic literature provides several "first principles" upon which a value conceptual model could be built. The concept of "first principles" originates in Aristotelian logic, i.e. *first principles of demonstration*²³. Hume, Kant, Fries and Nelson further advance the concept; they support the existence and use of logical *first principles* to justify belief. The first principles introduced below serve as axioms upon which this author constructs his conceptual model. They are used to increase the soundness of this study's logic.

Based upon a critical literature review²⁴, this author noticed that five truths continued to be asserted and accepted by the vast majority of writers in the PSM literature as well as in other related academic disciplines' writings. These five value first principles are:

- Align purchasing strategy with corporate strategy;
- Balance multiple objectives;

²¹ This assertion is supported in Section 7.3 where this author presents his conceptual model and Chapter Eight where he discusses his research findings.

²² See Section 4.6 for discussion of value stream management.

²³ See Section 7.1 where this author discusses logic and first principles in considerable detail.

²⁴ Outlined in Section 1.4.

- Adopt a systems perspective;
- Ensure that value flows across the system;
- Use ultimate customers' perceptions to understand value.

This author regrouped the literature mind map into a set of concepts or topics areas under these first principles. See Table 1A. These five value first principles and concepts are reviewed in the next five chapters. Attention is drawn to the fact that these five first principles and concepts are interrelated. The literature in one first principle often feeds and/or is shared by that of another. The author nevertheless categorises authors (Table 1A) for purposes of the literature review whilst recognising that the reader may disagree with this author's particular categorization.

1.7 Conclusion

This chapter provided an overall introduction to this thesis's research. To accomplish this objective, this author outlined the organisation of the thesis; described its scope and limitations; examined increasing references to value in the context of supply management; discussed the literature review process; introduced the definition of value used in this thesis; and introduced the five value first principles that will guide this author's research. The next chapter will begin this author's detailed discussion of these five value first principles.

To understand the first of the five principles – *align purchasing strategy with corporate strategy* – one must first understand several key concepts underlying the area of strategic management. Further to that end this author will review in the proceeding chapter the strategy literature in order to define competitive advantage and discuss its central contribution to business success; define competitive strategy and review its generic manifestations in business; define the strategic management process and outline the key elements of the strategic management process; discuss the concept of cascading objectives associated with different levels of the strategic management process and define strategic alignment of those objectives; and introduce the concept of policy deployment.

Table 1A: Primary literature reviewed

Section	Value First Principles in Supply Management	Related topic areas / literature	Relevant supply management literature	Relevant related literature
2.1	Align purchasing strategy and corporate strategy	Competitive advantage	Farmer (1978); Reck and Long (1988); Rajagopal and Bernard (1993); Monczka and Trent (1995); Cox (1998); Ramsay (2001); Ramsay (2001); and Ellram, Zsidisin et al. (2002)	Drucker (1955); Porter (1985); Lanning and Michaels (1988); Kay (1993); Besanko, Dranove et al. (1996); and Porter (1996)
2.2	Align purchasing strategy and corporate strategy	Competitive strategy; generic strategies; value disciplines	Adamson (1980); Farmer (1981); Cammish and Keough (1991); Carter and Narasimhan (1996); Stuart (1996); and Carter, Carter et al. (1998)	Drucker (1955); Ansoff (1965); Andrews (1971); Steiner and Miner (1977); Porter (1980); Porter (1985); Hamel and Prahalad (1989); Mintzberg and Quinn (1991), Kay (1993); Treacy and Wiersema (1993); and Porter (1996);
2.3	Align purchasing strategy and corporate strategy	Strategic management process	Kiser (1976); Farmer (1978); Jain and Laric (1979); Spekman and Hill (1980); Farmer (1981); Spekman (1981); Ellram and Carr (1994); Spekman, Kamauff et al. (1994); Harland, Lamming et al. (1999); and Cousins and Marshall (2000)	Mintzberg (1987); Davenport (1993); and Mintzberg, Ahlstrand et al. (1998)
2.4	Align purchasing strategy and corporate strategy	Cascading objectives; strategic alignment	Spekman (1981); Browning, Zabriskie et al. (1983); Reck and Long (1988); Freeman and Cavinato (1990); Pearson and Gritzmacher (1990); St. John and Young (1991); Watts, Kim et al. (1992); Fitzpatrick (1996); Lysons (1996); Rich and Hines (1997); Baily, Farmer et al. (1998); Cox (1998); Brown, Lamming et al. (2000); Cousins and Marshall (2000); Rich and Hines (2000); and Fawcett and Magam (2001)	Drucker (1955); Granger (1964); Andrews (1971); Ramsey (1976); Porter (1980); Ryans and Weinberg (1981); Kaplan and Norton (1992); Keeney (1992); and Robson (1997)
2.5	Align purchasing strategy and corporate strategy	Policy deployment (<i>hoshin kanri</i>)	Lamming (1996); Cox and Hines (1997); Cox and Lamming (1997); and Rich and Hines (1997)	Mulligan, Hatten et al. (1996); and Witcher and Butterworth (1999)

3.1	Balance multiple objectives	Single vs. multiple firm objective function(s); contracts; behavioural economics; behaviouralism; production function; transaction costs; Total Cost of Ownership (TCO)	Farmer (1972); Wind and Webster (1972); Watts, Kim et al. (1992); Ellram (1993); Fearon (1973); King (1973); Ellram (1994); and Ellram (2002)	Coase (1937); Drucker (1955); Cyert and March (1963); Granger (1964); Averitt (1968); Alchian and Demsetz (1972); Jensen and Meckling (1976); Thaler (1980); Tversky and Kahneman (1981); Demsetz (1983); Thaler (1991); Williamson (1991); Woo (1992); Douma and Schreuder (1998); and Anderson, Thomson et al. (2000)
3.2	Balance multiple objectives	Satisficing vs. maximising; stakeholders; bounded rationality; hierarchy of needs	Wind and Webster (1972); King (1973); Reck and Long (1988); Dumond (1991); and St. John and Young (1991)	Berle and Means (1932); Maslow (1943); Drucker (1955); Simon (1957); Penrose (1959); Ansoff (1965); Alchian and Demsetz (1972); Rasmussen (1974); Porter (1985); Milgrom and Roberts (1990); and Clarke (1998)
3.3	Balance multiple objectives	Balanced Scorecard	Cox (1998)	Drucker (1955); Kaplan and Norton (1992); Kaplan and Norton (1996); Kaplan and Norton (1999); Kaplan and Lamotte (2001); and Kaplan and Norton (2001)
3.4	Balance multiple objectives	Stakeholder approach to management	Freeman and Liedtka (1997)	Friedman (1962); Friedman (1970); Freeman and Reed (1983); Freeman (1984); Freeman and Gilbert (1987); Freeman and Evan (1990); Garvin (1991); Kotter and Heskett (1992); Waterman (1994); Donaldson and Preston (1995); RSA (1995); Freeman and Liedtka (1997); and Clarke (1998)
3.5	Balance multiple objectives	Balanced Scorecard and supply management	Butler (1996); Freeman and Liedtka (1997); Brewer and Speh (2000); Cousins and Hampson (2000); and Brewer and Speh (2001)	
4.1	Adopt a systems perspective	Systems thinking; hard vs. soft systems thinking; appreciative systems		Vickers (1965); Kauffman (1980); Checkland (1993); Richmond and Peterson (1996); Checkland and Holwell (1998); and Checkland and Scholes (1999)
4.2	Adopt a systems perspective	Systems thinking and the balanced scorecard; single- vs. double-loop learning; first vs. second order change		Argyris (1982); Bate (1994); Kaplan and Norton (2000); Norton (2000); and Kaplan and Norton (2001)

4.3	Adopt a systems perspective	Systems thinking in strategic management	Adamson (1980); Spekman (1981); Browning, Zabriskie et al. (1983); Pearson and Gritzmacher (1990); Watts, Kim et al. (1992); and Lysons (1996)	Granger (1964); Hofer and Schendel (1977); Argyris (1982); Pearce and Robinson (1988); Digman (1990); Thompson and Strickland (1990); Checkland (1993); Robson (1997); Checkland and Holwell (1998); Bleicher (1999); Checkland and Scholes (1999); Gharajedaghi (1999); Gomez (1999); Argyris (2000); and Kaplan and Norton (2001)
4.4	Adopt a systems perspective	Systems thinking and the theory of the firm		Smith (1776); Coase (1937); Penrose (1959); Andrews (1971); Alchian and Demsetz (1972); Richardson (1972); Williamson (1975); Jensen and Meckling (1976); Dierickx and Cool (1989); Prahalad and Hamel (1990); Cyert and March (1992); Teece, Pisano et al. (1997); and Douma and Schreuder (1998)
4.5	Adopt a systems perspective	Systems thinking and supply chain management; business system; commercial / value / supply chain; buy-side vs. sell-side	King (1967); Fearon (1973); Hakansson and Snehota (1989); Lamming (1993); Rajagopal and Bernard (1993); Cousins (1994); Spekman, Kamauff et al. (1994); Harland (1995); Campbell and Wilson (1996); Harland (1996); Kornelius and Wynstra (1996); Cox (1998); Harland, Lamming et al. (1999); Project ION (1998); Cox, Sanderson et al. (2000); and Fawcett and Magam (2001)	Hayes and Wheelwright (1984); Porter (1985); Lanning and Michaels (1988); and Lanning (1998)
4.6	Adopt a systems perspective	Systems thinking and value management	Womack, Jones et al. (1990); Womack and Jones (1996); Anderson and Narus (1999); Hines and Cousins (2000); and Hines, Lamming et al. (2000)	Normann and Ramirez (1993); Normann and Ramirez (1994); Moore (1996); Woodruff and Gardial (1996); Freeman and Liedtka (1997); and Lanning (1998)
5.1	Ensure that value flows across the system	Economic theories of value		See Table 6A (48 references)
5.2	Ensure that value flows across the system	Total quality management; continuous improvement; lean production; value-add; value proposition; value offering	Hauser and Clausing (1988); Womack, Jones et al. (1990); Lamming (1993); Ansari and Modarress (1994); Lysons (1996); Womack and Jones (1996); Saunders (1997); Baily, Farmer et al. (1998); Anderson and Narus (1999); Anderson, Thomson et al. (2000); Brown, Lamming et al. (2000); and Hines, Lamming et al. (2000)	Drucker (1955); Garvin (1984); Krafcik (1988); Zeithaml (1988); Normann and Ramirez (1993); Normann and Ramirez (1994); Kim and Maubourgne (1997); Lanning (1998); and Ramirez (1999)

5.3	Ensure that value flows across the system	Business process re-engineering; Process redesign; cross-functional management; value flow; value stream; value alignment; value gaps	Cousins (1994); Womack and Jones (1996); Rich and Hines (1997); Brown, Lamming et al. (2000); Rich and Hines (2000); and Fawcett and Magam (2001)	Lanning and Michaels (1988); Davenport and Short (1990); Hammer (1990); Davenport (1993); and Hammer and Champy (1993)
5.4	Ensure that value flows across the system	PSM and value flows; relational competence analysis; external resource management; lean supply	Kraljic (1983); Cunningham and Homse (1986); Freeman and Cavinato (1990); Cammish and Keough (1991); Macbeth and Ferguson (1992); Lamming (1993); Cox (1996); Cox and Lamming (1997); Hines (1997); Spiers (1977); and Cousins and Marshall (2000)	Mintzberg (1979); Porter (1985); and Williamson (1985)
5.5	Ensure that value flows across the system	Reassigning value stream activities; value innovation	Kornelius and Wynstra (1996); Hines, Lamming et al. (2000); and Hoover, Eloranta et al. (2001)	Normann and Ramirez (1993); Normann and Ramirez (1994); Kim and Maubourgne (1997); and Ramirez (1999)
6.1	Use ultimate customer's perceptions to understand value	Value typology; value hierarchy; means-ends models		Maslow (1943); Hartman (1958); Day, Shocker et al. (1979); Zeithaml (1988); Janisch (1992); Keeney (1992); Bahm (1993); Woodruff and Gardial (1996); and Anderson and Narus (1999)
6.2	Use ultimate customer's perceptions to understand value	Value assessment (societal / organisational / individual determinants)	Womack, Jones et al. (1990); Lamming (1993); Nishiguchi (1994); Price (1996); and Cox (1998)	Howard and Sheth (1967); Mintzberg (1979); Hofstede (1980); Mintzberg (1982); Keirse and Bates (1984); Mintzberg and Quinn (1991); Handy (1993); Fukuyama (1995); Bacon (1996); Hogan and Blake (1996); Hofstede (1997); and Morgan (1997)
6.3	Use ultimate customer's perceptions to understand value	Customer satisfaction; customer (value) perceptions		Day, Shocker et al. (1979); Zeithaml (1988); Gale (1994); Woodruff and Gardial (1996); Holbrook (1999); and Oliver (1999)
6.4	Use ultimate customer's perceptions to understand value	Goods vs. services; service operations; customer service expectations; customer service perceptions; service gaps	Brown, Blackmon et al. (2001)	Zeithaml, Parasuraman et al. (1985); Zeithaml, Parasuraman et al. (1990); Berry and Parasuraman (1991); and Holbrook (1999)
6.5	Use ultimate customer's perceptions to understand value	Value gaps; strategic supply management	Adamson (1980); Farmer (1981); Carter and Narasimhan (1996) and Smeltzer (1997)	

CHAPTER TWO:

DISCUSSION OF VALUE FIRST PRINCIPLES

**‘ALIGN PURCHASING STRATEGY WITH
CORPORATE STRATEGY’**

2.0 Purpose

In the preceding chapter this author provided an overall introduction to this thesis's research. He outlined the organisation of the thesis, described its scope and limitations, examined increasing references to value in the context of supply management, discussed the literature review process, introduced the definition of value used in this thesis, and presented the five value first principles that will guide this author's research. This chapter begins the detailed discussion of those principles.

Accordingly the purpose of this chapter is to discuss the first value first principle – *align purchasing strategy with corporate strategy*. To accomplish this objective, the author will review the academic literature in order to:

1. Define *competitive advantage* and discuss its central contribution towards business success;
2. Define *competitive strategy* and review its generic manifestations in business;
3. Define the *strategic management* process found in companies, and outline the key *elements* of the strategic management process;
4. Discuss the *cascading objectives* associated with different *levels* of the strategic management process, and define *strategic alignment* of those objectives;
5. Introduce the concept of *policy deployment*.

2.1 Competitive advantage defined

Although *competitive advantage* is frequently referenced in business literature, authors have rarely defined the term explicitly. Porter (1985) provides one of the earliest *implicit* definitions of competitive advantage in the strategic literature:

Competitive advantage grows fundamentally out of [the] value a firm is able to create for its buyers that exceeds the firm's cost of creating it. Value is what buyers are willing to pay, and superior value stems from offering lower prices than competitors for equivalent benefits or providing unique benefits that more than offset a higher price. Porter (1985:3)

He observes that there are two types of competitive advantage: cost leadership and differentiation.

It is important to observe that Porter grounds competitive advantage in the concept of value. In an unpublished whitepaper Lanning and Michaels (1988)¹ similarly link competitive advantage to the concept of value (delivery)²:

Competitive advantage is *delivering* a superior value to enough customers at a low enough cost to generate wealth. ... Managing this delivery is top management's primary job. ... Superior value delivery is the essence of competitive advantage. Lanning and Michaels (1988:1)

They provide one of the earliest *explicit* definitions of competitive advantage:

Therefore, at the business unit level a useful definition of sustainable competitive advantage is: *the sustainable ability to deliver a superior value to a large enough customer group, and at a low enough cost relative to the price, to produce adequate returns and growth.* Lanning and Michaels (1988:3)

The reference to value found in both Lanning and Michaels (1988) and Porter (1985) is not surprising; Porter defines value in the context of the value chain which in turn was based on the McKinsey business system framework. As McKinsey consultants Lanning and Michaels were well versed in the business system framework³.

Kay (1993) also (albeit indirectly) defines competitive advantage in terms of value:

Corporate success is based on the distinctive capabilities of the firm Corporations add value when they successfully match these distinctive capabilities to the external environment they face. A distinctive capability becomes a competitive advantage when it is applied in an industry and brought to a market. Kay (1993:iii)

His reference to *distinctive capabilities* closely mirrors the definition of competitive advantage advanced by the core competence movement which draws from resource-based theory of the firm. Resource-based theory is grounded in the concept that firms acquire/develop and maintain/protect critical assets in order to gain competitive advantage⁴.

Building on the two types of competitive advantage he previously identified (cost leadership and differentiation), Porter (1996) stresses the 'complementarities' that result from the system of interlinked activities within a company. These

¹ The *value delivery framework* was published a decade later by Lanning (1998). Lanning (1998:12) asserts that he 'first created the seminal concepts of the *value proposition* and *value delivery system* in 1983-84 while with McKinsey & Company'. Based on his assertion, his notion of the *value delivery system* predates Porter (1985)'s concept of the *value chain*.

² See Section 4.5.

³ See Section 4.5 where this author discusses the Business System.

⁴ Resource-based theory will be reviewed in Section 4.4.

complementarities are the product of the degree of strategic 'fit' between the firm's activities and its competitive advantage.

Competitive advantage grows out of the entire system of activities. The fit among activities substantially reduces cost or increases differentiation. Beyond that, the competitive value of individual activities—or the associated skills, competencies and resources—cannot be decoupled from the system or the strategy. Thus in competitive companies it can be misleading to explain success by specifying individual strengths, core competencies, or critical resources. The list of strengths cuts across many functions, and one strength blends into others. It is more useful to think in terms of themes that pervade many activities, such as low cost, a particular notion of customer service, or a particular conception of the value delivered. These themes are embodied in nests of tightly linked activities. Porter (1996:73)

For purposes of this thesis, *competitive advantage* is defined as *the unique configuration of interlinked activities, actor bonds and critical resources the firm uses to deliver a superior value proposition to enough customers at a low enough cost to generate wealth*. This definition is based on the above authors; the conceptualization of the firm as a configuration of activities, actors and resources is based on Hakansson and Snehota (1992)'s definition of firm relationships. The above definition is also supported by the following literature: activity links, by the positioning school of business strategy⁵; actor bonds, by the behavioural and competence-based theories of the firm⁶; and resource ties, by the resource-based theory of the firm⁷.

A firm's purchasing process plays an important role in arriving at the proper configuration that leads to competitive advantage for a given firm. Farmer (1978) notes that:

Clearly supply strategies do not stand on their own. The purpose in developing such strategies is to allow the buying company competitive advantage in its own end market. The company which ignores potential supply strategies of a creative rather than a defensive nature, is foregoing sources of such advantage. Farmer (1978:11)

Reck and Long (1988:3) similarly support purchasing's role in achieving competitive advantage: 'It is the role of the purchasing function within a firm to structure and manage itself to support and enhance the firm's ability to retain its desired competitive advantage'. So do Monczka and Trent (1995:27) even though, they report, most management do not: 'Executive management needs to

⁵ Discussed in Section 2.3.

⁶ Discussed in Section 4.4.

⁷ Also discussed in Section 4.4.

examine how purchasing and supply base strategies can be more closely linked with corporate strategies to achieve competitive advantages’.

In contrast, Ramsay (2001) argues that such a role for purchasing is unlikely based on the premises of resource-based theory. He claims that competitive advantage derived from the supply base would *never be sustainable*:

At the heart of the argument lies the unexceptional observation that materials, services or products available in markets to one buyer are likely to be available to other buyers. Hence the difficulty of protecting any purchasing activity based advantage from imitation by competitors. Ramsay (2001:258)

Attention is drawn to the fact that Ramsey and other orthodox adherents of resource-based theory (Cox⁸ notably) ignore the “complementarities” that arise from the system of interconnected activities within the firm. These complementarities result from the ‘transmutation of resources ... [which is] greater than – or at least different from – the sum of its parts, with its output larger than the sum of all inputs’ Drucker (1955:24). In other words, according to Drucker, the firm is larger than just a product of its resources (however they are defined). Recall that Porter (1996) echoed Drucker’s notion of complementarities. Porter’s notion of strategic fitness is predicated on:

[A company’s] doing many things well—not just a few—and integrating among them. If there is no fit among activities, there is no distinctive strategy and little sustainability. Porter (1996:75)

The definition of competitive advantage adopted by this thesis also supports this notion that competitive advantage results from more than just the assemblage of a firm’s assets. This author asserted that value is partially understood when only defined as an adjective, noun or verb but not all three⁹. This author argues that insufficiently developed definitions of competitive advantage are in large part the result of a limited and often myopic definition of value (which was previously shown to form the basis of competitive advantage). Resource-based theorists frequently fail to conceptualize value as anything other than a noun (i.e. an asset), when in fact any definition of value – and therefore any robust theory of competitive advantage and hence strategy – must also reflect value’s role as a verb (i.e. a process) as well as an adjective (i.e. a perception).

⁸ See Section 4.5 for discussion of Cox (1998) and The Birmingham Group.

⁹ See Section 1.5.

2.2 Competitive strategy defined

Drucker (1955) defines the central purpose of the business as creating a market:

There is only one valid definition of business purpose: *to create a customer*. ... Markets are not created by God, nature or economic forces, but by business men. The want they satisfy may have been felt by the customer before he was offered the means of satisfying it. It may indeed, like the want of food in a famine, have dominated the customer's life and filled all his waking moments. But it was a theoretical want before; only when the action of business men makes it an effective demand is there a customer, a market. It may have been an unfelt want. There may have been no want at all until business action created it – by advertising, by salesmanship, or by inventing something new. Drucker (1955:52)

This definition is important because, similar to competitive advantage, a business's purpose is grounded in the notion of value¹⁰:

It is the customer who determines what a business is. For it is the customer, and he alone, who through being willing to pay for a good or for a service, converts economic resources into wealth, things into goods. What the business thinks it produces is not of first importance – especially not to the future of the business and to its success. *What the customer thinks he is buying, what he considers "value", is decisive – it determines what a business is, what it produces and whether it will prosper.* [italics added] Drucker (1955:53)

Drucker does not explicitly label this central purpose "strategy". It was Porter (1980) who based the essence of competitive strategy on relating a company to its environment. The customer, one of five external competitive forces, determines a firm's strategy; Porter (1980:xvi) defines this strategy as 'The broad based formula for how business is going to compete, what its goals should be, and what policies will be needed to carry out those goals'. While earlier definitions of strategy can be found, Porter's is one of the earliest which emphasizes the importance of the customer/buyer. Earlier definitions of strategy¹¹ stressed the planning aspects of the strategic management process but omitted any reference to the particular value created for the customer. For example:

Ansoff (1965)	Strategy is a rule for making decisions under conditions of partial ignorance, whereas policy is a contingent decision. Business strategy is the broad collection of decision rules and guidelines that define a business' scope and growth direction.
Andrews (1971:28-29)	Andrews defines the word strategy as including major objectives, goals, policies and plans. He also states that "the choice of goals and the formulation of policy cannot in any case be separate decisions." [Andrews (1971) <i>The Concept of Corporate Strategy</i> , pp. 28-29] In Adamson (1980:26)
Steiner and Miner (1977)	Strategy refers to the formulation of basic organisational missions, purposes and objectives; policies and program strategies to achieve them; and the methods needed to ensure that strategies are implemented to achieve organisational ends.

¹⁰ Cox (1998) disagrees, asserting that the purpose of business is to accumulate profits. Drucker (1955), however, recognises the need to turn a profit. "This does not mean that profit and profitability is not the purpose of business enterprise and business activity, but a limiting factor on it. Profit is not explanation, cause or rationale of business behaviour and business decisions, but the test of their validity" Drucker (1955:51).

¹¹ Definitions of strategy are explored in Section 2.3.

In contrast to these definitions, Porter conceptualizes competitive strategy as deliberately selecting a limited range of options from the two types of competitive advantage available – cost leadership or differentiation. Firms can focus narrowly or deliver broadly on these competitive advantages in order to arrive at one of three generic competitive strategies: cost leadership, differentiation or focus. Generally firms that attempt to straddle two strategies risk being “stuck in the middle”, since ‘effectively implementing any of these generic strategies usually requires total commitment and supporting organizational arrangements that are diluted if there is more than one primary target’ Porter (1980:35).

Surprisingly one must wait until the early 1990s until the strategic literature again addresses the theme of competitive strategy in the context of the particular value companies create for/provide to their respective customers. Whilst Porter (1985) does introduce the concept of the *value chain*¹² as a series of linked *value-adding*¹³ activities a firm performs, he repeats the three generic strategies he introduced five years earlier. Other academic disciplines do examine value during this time period: quality and lean manufacturing¹⁴ in the 1980s and marketing¹⁵ in the 1980s. It is only until 1993 that the strategy literature again takes up the notion of *value-based* strategies.

Treacy and Wiersema (1993) (re)introduce value-based strategies using the term *value disciplines* in a similarly entitled Harvard Business Review article.

Companies that have taken leadership positions in their industries in the last decade typically have done so by narrowing their business focus, not broadening it. They have focused on delivering superior customer value in line with one of three value disciplines— [1] **operational excellence**, [2] **customer intimacy** or [3] **product leadership**. They have become champions in one of these disciplines while meeting industry standards in the other two. ... [1] By operational excellence, we mean providing customers with reliable products or services at competitive prices and delivered with minimal difficulty or inconvenience. ... [2] Customer intimacy means segmenting and targeting markets precisely and then tailoring offerings to match exactly the demands of those niches. Companies that excel in customer intimacy combine detailed customer knowledge with operational flexibility so that they can respond quickly to almost any customer need, from customizing a product to fulfilling special requests. As a result, these companies engender tremendous customer loyalty. ... [3] Product leadership means offering customers leading-edge product and services that consistently enhance the customer's use or application of the product, thereby making rivals' goods obsolete. Treacy and Wiersema (1993:84-85)

¹² The value chain will be discussed in Section 4.5.

¹³ Value-added will be examined in Section 5.2.

¹⁴ See Chapter Five for a discussion of quality and lean thinking.

¹⁵ This author reviews the marketing literature in Chapter Six.

They reintroduce value-based strategies in that their value-disciplines echo Porter's earlier generic strategies. They differ from Porter, however, in that they de-emphasise the importance of external environmental forces as the determinants of a company's value discipline. Instead they stress the company's *choice* of its strategic value discipline; they also highlight the importance of *aligning* all the firm's processes and activities with the chosen discipline. Porter (1996) later incorporates choice in his three generic strategies:

Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value. Porter (1996:64)

Porter also elevates the importance and difficulty of strategic alignment when discussing the trade-offs that firms must inevitably make when focusing on their chosen strategy.

Trade-offs arise for three reasons. The first is inconsistencies in image or reputation. A company known for delivering one kind of value may lack credibility and confuse customers—or even undermine its reputation—if it delivers another kind of value or attempts to deliver two inconsistent things at the same time. ... Second, and more important, trade-offs arise from activities themselves. Different positions (with their tailored activities) require different product configurations, different equipment, different employee behavior, different skills, and different management systems. Many trade-offs reflect inflexibility in machinery, people or systems. ... Finally, trade-offs arise from limits on internal coordination and control. By clearly choosing to compete in one way and not another, senior management makes organizational priorities clear. Companies that try to be all things to all customers, in contrast, risk confusion in the trenches as employees attempt to make day-to-day operating decisions without a clear framework. Porter (1996:68-69)

For this thesis *competitive strategy* is defined as *the set of actions taken by management to gain competitive advantage by increasing the degree of congruence between a firm and its adopted value-based approach to competition.*

The concept of value-based approaches is drawn principally from Porter (1980) and Porter (1985); Treacy and Wiersema (1993); and Porter (1996) discussed above¹⁶. The concept of congruence is based in the writings of Porter (1980), Mintzberg and Quinn (1991), Kay (1993) and Cox (1998) discussed below.

Porter (1980) notes that the appropriateness of a competitive strategy is determined based upon the context of the firm. The context includes internal factors (company strengths and weaknesses, personal values of the key implementers) and external factors (industry opportunities and threats, broader

¹⁶ Although Lanning (1998:12) claims to have first invented the seminal concept of the value delivery system in 1983-84 whilst with the consultancy McKinsey & Company, this concept – which considerably overlaps Porter's and Treacy and Wiersema's notion of a value-based approach to competition – remained unpublished until 1998. See Section 4.6 for a detailed discussion of the value delivery system concept.

societal expectations). Mintzberg and Quinn (1991) support this viewpoint, although their definition of appropriateness is examined from the perspective of the strategic formulation *process*. They point out the error of assuming a best way to develop competitive strategy for a firm:

There is no single, universally accepted definition of strategy. There is no one best way to create strategy, nor is there one best form of organisation. The world is full of contradictions and the effective strategist is one who can live with contradictions, learn to appreciate their causes and effects and reconcile them sufficiently for effective action. Mintzberg and Quinn (1991:xi)

The roots of their assertion lie in contingency theory as reflected in Quinn (1980)'s earlier writings in which he describes strategic incrementalism¹⁷. Kay (1993) also notes that competitive strategy is ultimately grounded in contingency theory (via organisational behaviour thinking)¹⁸.

Cox (1998) also incorporates the concept of contingency in his notion of strategic 'fit[ness] for purpose'.

The key here is the concept of **appropriateness**. The test of a competent person in business (and in life) has to be seen in terms of their ability to know when certain actions are appropriate or not under given circumstances. ... If the world is contingent—which means that things change constantly—and there is uncertainty about how things will change in the future then it is unlikely the *answer* we believe to be true for success today will necessarily be true for tomorrow. Cox (1998:3)

Cox immediately proceeds to base his contingent theory of "strategic fit" on the allocation of scarce resources. Unfortunately, he falls into the logical trap commonly encountered by orthodox resource-based strategic theorists: a myopic view of acquiring/maintaining critical assets as the source of value. This author placed the roots of this logical trap in an incomplete definition of value¹⁹. The problem of incomplete definitions is referenced in the strategy literature. For example, Porter (1996) notes the importance of including *all* five competitive forces:

Satisfying buyer needs may be a prerequisite for industry profitability, but in itself is not sufficient. The crucial question in determining profitability is whether firms can capture the value they create for buyers, or whether the value is competed away to others. Industry structure determines who captures the value. Porter (1996:62)

¹⁷ 'Strategic decisions cannot be aggregated into a single decision matrix, with factors treated simultaneously to achieve an optimum solution. There are cognitive limits, but also process limits. ... Successful executives connect and sequentially arrange a series of strategic processes and decisions over a period of years. ... They constantly reconfigure corporate structure and strategy as new information suggests better—but never perfect—alignments. The process is dynamic, with no definite beginning or end'. Quinn (1980)

¹⁸ Kay cites Woodward (1965); Burns and Stalker (1966); Steiner (1979); and Grinyer, Al-Bazazz et al. (1986).

¹⁹ See Section 1.5 where this author introduces the notion of incomplete definitions of value, Section 2.1 where this author notes that orthodox adherents of resource-based theory tend to define value solely as a noun (i.e., critical assets), and Section 4.4 where this author discusses resource-based theory of the firm.

Kay (1993:361) uses approximately the same language. “The successful match of organizational structure and environment is not, in itself, a source of competitive advantage; it is a necessary, but not sufficient condition”.

By grounding this thesis’s definitions of competitive strategy and competitive advantage in value theory, this author aims to move beyond this “necessary, but not sufficient condition”. Unless a company’s supply strategy embraces such a definition, the company’s purchasing function risks remaining perceived as an important but not sufficiently strategic activity. Porter (1985:88) supports this conclusion when he asserts ‘Procurement has strategic significance in almost every industry. ... The total cost of purchased inputs as a percentage of firm value provides an important indicator of the strategic significance of procurement’ whilst simultaneously noting that procurement rarely has achieved “sufficient stature” in most firms. For even if one accepts Cox (1995:73)’s notion of what is “fit for purpose” based on the underlying *raison d’être* of the firm which he takes to be ‘the creation of profit (or a margin) within a particular market structure’, procurement risks being perceived as non-strategic if it cannot demonstrate its alignment with the firm’s chosen strategy. Porter (1985) asserts that the firm’s strategy is based on the firm’s competitive advantage²⁰. This is true of any school of strategic management. For as Ramsay (2001) cautions:

The concentration on above-normal profits increases the strategic significance of the argument. [Yet] Profit contributions alone does not define strategic importance. Every function in a company, from design engineering to catering, can claim to contribute to profits through cost-reducing activities. ... Perhaps this truism lies behind the signal failure to improve the function’s status through references to cost-based arguments about the importance of the function’s contributions to profit? Ramsay (2001:258)

How then do firms manage what is strategic?

2.3 Strategic management defined

Mintzberg (1987) defines strategy in terms of 5 Ps: strategy as **plan**, **ploy**, **pattern**, **position**, and **perspective**. Strategy as *plan* is about direction; it is a guide or course of action into the future, the path a company follows to move from today (here) to tomorrow (there). Strategy as *pattern* is the actual, consistent behaviours

²⁰ Porter (1985:11) notes: ‘The fundamental basis of above-average performance in the long run is sustainable competitive advantage. ... Without a sustainable competitive advantage, above-average performance is usually a sign of harvesting.’.

of a firm over time. These realized behaviours may have been intended or not; they may have been deliberately anticipated or may have emerged in an evolutionary manner. Strategy as *position* entails locating particular products and services in particular markets. Strategy as *perspective* is about the fundamental way 'we do things here'. Strategy as *ploy* is about the specific maneuvers used by a company to outwit its competitors.

This author conceptualizes strategic management as an umbrella P – process – over the five definitions of strategy. Davenport (1993:5) defines a process as 'A specific ordering of work activities across time and place, with a beginning, an end, and clearly identified inputs and outputs – a structure for action'. His reference to activities echoes the 'interlinked activities' that in part characterize the firm (along with resources and actors)²¹. For this thesis *the strategic management process is defined as the process of ordering a firm's internal and external activities, resources and actors in accordance with the firm's competitive strategy*²².

Mintzberg, Ahlstrand et al. (1998) posit ten different schools of strategic formation: design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental, configuration. These ten schools diverge along several key dimensions. Table 2A highlights some of these major differences:

- The inclusion/exclusion of Mintzberg's five components of strategy (e.g. plan, pattern, ploy, perspective and position).
- Varying emphasis on the *normative* nature of strategic formulation. The first three schools are *prescriptive* – they describe how strategies *should* be formulated ideally rather than how they actually *do* form. The next six are *descriptive* – they consider particular areas of the strategic process and attempt to explain how strategies *actually* do get made²³. The last school

²¹ See Section 2.1.

²² Lanning and Michaels (1988) / Lanning (1998) equate the firm's internal and external activities, resources and actions with their concept of the value delivery system. They define strategy as the choice, design and communication of the value delivery system which delivers the firm's value proposition to its primary end customers. Their definition of the strategic management practice is closely aligned with the definition used by this thesis. See Section 4.6 for a discussion of the value delivery system and value proposition.

²³ There is considerable overlap between these schools of thought and the theory of the firm literature discussed in Section 4.4.

aims to be integrative – to selectively use elements of the preceding nine schools during the various stages of an organisational / firm lifecycle.

- Disagreement over strategic foresight, i.e. whether strategy is an intended (*a priori*) or emergent (*a posteriori*) outcome.
- Lack of consensus on whether strategic management should be principally focussed on ‘that which is’ or ‘that which could be’.
- Differing opinions about whether the management process is incremental or discontinuous, conscious or unconscious.

Each of the ten schools conceptualizes what is important or valuable very differently. These differences would likely result in dissimilar strategic management processes within a firm depending upon the school the management team follows. A firm’s management would value²⁴ and therefore reward / incent differing activities and behaviours (see Table 2B) based upon the premises of the ten schools (outlined in Table 2C).

This author classified a sample of key works from the strategic literature that have been or will be reviewed in this thesis in Table 2D. Whilst several of the earlier writers adhere to a single school, later authors more commonly reflect principles of multiple schools. This is notably true of writers (in the lower table) who develop concepts of value. This author also classified a sample of seminal works from the purchasing literature in Table 2E. Much like the strategy literature, authors in the purchasing literature commonly display characteristics of multiple schools. More importantly purchasing authors who propose new value-driven, value-based or value-added approaches to supply (in the lower table) generally fail to adopt *any* strategic viewpoint (other than an occasional reference to the value chain)!

The implications for this research are clear. Firstly, few authors adhere to a single school of strategy. It is difficult, therefore, to ascertain most authors’ respective definitions of value since any such definitions would be amalgams of assumed

²⁴ Based on this author’s tripartite definition of value (value as a noun, verb and adjective) introduced in Section 1.5.

Table 2A: Dimensions of the ten schools of strategic formation
Source: Mintzberg, Ahlstrand *et al.* (1998:354-359)

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Table 2B: Typology of the strategy formation process (adapted from Mintzberg, Ahlstrand et al. (1998))			
School	Hypothetical conceptualization of value when used as a...		
	...Noun	...Verb	...Adjective
Design	none	Fit	Ordered
Planning	Firm-wide '5 year plan'	Formalize	Anticipated
Positioning	Profitable industry position	Analyse	Pre-determined, structured
Entrepreneurial	Temporary niche opportunity	Envision	Dynamic
Cognitive	Market "read", intelligence	Frame	Filtered
Learning	Distinctive core competences	Learn	Competent
Power	(Inappropriate) assets	Grab	Aggressive
Cultural	Shared beliefs, common ideology	Coalesce	Collective
Environmental	Evolutionary change	Cope	Contingent, reactive
Configuration	Industry and firm transformation	Integrate	Appropriate

Table 2C: Premises of the ten schools of strategy Extracted from Mintzberg, Ahlstrand et al. (1998)	
School	Premises
Design	" Strategy formation as a process of conception: Strategy formation should be a <i>deliberate</i> process of <i>conscious thought</i> . Strategies should be one of a kind: the best ones result from a <i>process</i> of individualized design. These strategies should be <i>explicit</i> , so they have to be kept simple. Only after these unique, full blown, explicit and simple strategies are formulated can they then be implemented."
Planning	" Strategy formation as a formal process: Strategies result from a <i>controlled, conscious process</i> of <i>formal planning</i> , decomposed into distinct steps, each delineated by checklists and supported by techniques. Strategies appear from this process full blown, to be made <i>explicit</i> so that they can be implemented through detailed attention to <i>objectives, budgets, programs, and operating plans</i> of various kinds."
Positioning	" Strategy formation as an analytic process: Strategies are <i>generic</i> , specifically common, identifiable <i>positions</i> in the marketplace. That marketplace (the context) is economic and competitive. The strategy formation process is therefore one of selection of these generic positions based on analytical calculation. Strategies thus come out of this process full blown and are then articulated and implemented; in effect, <i>market structure</i> drives deliberate positional strategies that drive organizational structure."
Entrepreneurial	" Strategy formation as a visionary process: Strategy exists in the mind of the leader as <i>perspective</i> , specifically a sense of <i>long-term direction</i> , a <i>vision</i> of the organizations' future. The process of strategy formation is <i>semiconscious</i> at best, rooted in the experience and <i>intuition</i> of the leader, whether he or she actually conceives the strategy or adopts it from others and then internalizes it in his or her own behavior. The strategic vision is thus malleable, and so entrepreneurial strategy tends to be <i>deliberate</i> and <i>emergent</i> – deliberate in overall vision and emergent in how the details of the vision unfold"
Cognitive	" Strategy formation as a mental process: Strategy formation is a <i>cognitive</i> process that takes place in the <i>mind</i> of the strategist. Strategies thus emerge as <i>perspectives</i> – in the form of concepts, maps, schemas, and frames—that shape how people deal with inputs from the environment. These inputs (according to the "objective" wing of this school) flow through all sorts of distorting filters before they are decoded by the cognitive maps, or else (according to the "subjective" wing) are merely interpretations of a world that exists only in terms of how it is <i>perceived</i> . The seen world, in other words, can be modeled, it can be framed, and it can be constructed."
Learning	" Strategy formation as an emergent process: The complex and unpredictable nature of the organization's environment, often coupled with the diffusion of knowledge bases necessary for strategy, precludes deliberate control; strategy making must above all take the form of a process of learning over time, in which, at the limit, <i>formulation</i> and <i>implementation</i> become <i>indistinguishable</i> . While the leader must learn too, and sometimes can be the main learner, more commonly it is the <i>collective system</i> that <i>learns</i> : there are many potential strategists in most organizations. This learning proceeds in <i>emergent</i> fashion, through behavior that stimulates thinking retrospectively, so that sense can be made of action."
Power	" Strategy formation as a process of negotiation: Strategy formation is shaped by <i>power</i> and <i>politics</i> , whether as a process inside the organization or as the behavior of the organization itself in its external environment. The strategies that may result from such a

	process tend to be emergent, and take the form of positions and ploys more than perspectives. Micro power sees strategy making as the interplay, through persuasion, bargaining, and sometimes direct confrontation, in the form of political games, among parochial interests and shifting <i>coalitions</i> , with none dominant for any significant period of time. Macro power sees the organization as promoting its own welfare by controlling or cooperating with other organizations, through the use of strategic maneuvering as well as collective strategies in various kinds of networks and alliances.”
Cultural	“ Strategy formation as a collective process: Strategy formation is a process of social interaction, based on the beliefs and understandings shared by the members of an organization. An individual acquires these beliefs through a process of <i>acculturation</i> , or socialization, which is largely <i>tacit</i> and nonverbal, although sometimes reinforced by more formal indoctrination. The members of an organization can, therefore, only partially describe the beliefs that underpin their culture, while the origins and explanations may remain obscure. As a result, strategy takes the form of perspective above all, more than positions, rooted in <i>collective intentions</i> (not necessarily explicated) and reflected in the patterns by which the deeply embedded resources, or capabilities, of the organization are protected and used for competitive advantage. Strategy is therefore best described as <i>deliberate</i> (even if <i>not fully conscious</i>).”
Environmental	“ Strategy formation as a reactive process: The environment, presenting itself to the organization as a set of general forces, is the central actor in the strategy-making process. The organization must respond to these forces, or else be ‘selected out’. Organizations end up clustering together in distinct ecological-type niches, positions where they remain until resources become scarce or conditions too hostile. Then they die.”
Configuration	“ Strategy formation as a process of transformation: Most of the time, an organization can be described in terms of some kind of stable configuration of its characteristics: for a distinguishable period of time, it adopts a particular form of structure matched to a particular type of context which causes it to engage in particular behaviors that give rise to a particular set of strategies. These periods of <i>stability</i> are <i>interrupted</i> occasionally by some process of transformation – a <i>quantum leap</i> to another <i>configuration</i> . These successive states of configuration and periods of transformation may order themselves over time into <i>patterned sequences</i> , for example describing the lifecycle of organizations. The key to strategic management, therefore, is to sustain stability or at least <i>adaptable strategic</i> change most of the time, but periodically to recognize the need for transformation and be able to manage that disruptive process without destroying the organization.”

Table 2D: Seminal strategic literature categorized by school of strategy²⁵

Author	Concepts	Design	Planning	Positioning	Entrepreneuria	Cognitive	Learning	Power	Cultural	Environmental	Configuration
Simon (1957; Simon (1961)	Bounded rationality	.	.	.	.	x	.	.	.	.	.
Lindbloom (1959)	Muddling through	.	.	.	.	.	x	.	.	.	.
Chandler (1962)		x	.	.	.	.	.	.	.	.	x
Cyert and March (1963)	Stakeholders	.	.	.	.	x	x	.	.	.	.
Ansoff (1965)		.	x	.	.	.	.	.	.	.	.
Pfeffer and Salancik (1978)		.	.	.	.	.	.	x	.	.	.
Porter (1980); Porter (1985)	Competitive advantage, value- add, value chain	.	.	x	.	.	.	.	.	.	.
Quinn (1980)	Strategic incrementalism	.	.	.	.	.	x	.	.	.	.
Freeman (1984)	Stakeholder strategy	.	.	.	.	.	.	x	.	.	.
Wenerfelt (1984)	Resources	.	.	.	.	.	.	x	.	.	.
Prahalad and Hamel (1985); Hamel and Prahalad (1989; Hamel and Prahalad (1993)	Strategic intent	x	.	.	x	.	.	.	.	.	.
Dierickx and Cool (1989)	Resources	.	.	.	.	.	.	x	.	.	.
Hakansson and Snehota (1989; Hakansson and Snehota (1992)	Inter-firm relationships	.	.	x	.	.	.	x	.	.	.
Prahalad and Hamel (1990); Hamel and Heene (1994)	Core competences	x	.	.	.	.	x	.	.	.	.
Kay (1993)		.	.	.	.	.	x	.	.	x	.
Porter (1996)	Strategic advantage vs. operational excellence	.	.	x	.	.	.	.	.	.	.
Teece, Pisano et al. (1997)		.	.	.	.	.	.	x	.	.	.
Lanning and Michaels (1988)	Value delivery system	x	.	.	.	x	.	.	.	.	.
Kaplan and Norton (1992; Kaplan and Norton (1993; Kaplan and Norton (1996; Kaplan and Norton (1996)	Balanced scorecard	.	x	.	.	.	.	.	.	.	.
Normann and Ramírez (1993; Normann and Ramírez (1994)	Value constellation, interactive strategy	.	.	x	.	.	x	.	.	.	x
Treacy and Wiersema (1993)	Value disciplines	.	.	x	.	.	x	.	x	.	.
Nalebuff and Brandenburger (1996)	Chain of customers, service	.	.	x	.	.	.	.	.	.	x
Kim and Maubourgne (1997)	Value innovation, reinvention	x	.	.	x	.	.	.	.	.	x

²⁵ Using the premises of the ten schools outlined in Mintzberg, Ahlstrand et al. (1998).

Table 2E: Seminal supply management literature categorized by school of strategy²⁶

Author	Concepts	Design	Planning	Positioning	Entrepreneuria	Cognitive	Learning	Power	Cultural	Environmental	Configuration
Farmer (1972; Farmer (1978; Farmer and Ploos van Amstel (1991)	Value (chain) pipeline management	.	x	.	.	.	.	.	.	.	.
Spekman (1981)		.	x	.	.	.	.	.	.	.	.
Kraljic (1983)	Supply strategy	.	x	.	.	.	.	.	.	.	.
Piore and Sabel (1984)	Strategic dualism	.	.	.	.	.	.	x	.	x	.
Pearson and Gritzmacher (1990)	Purchasing integration	.	x	x	.	.	.	.	.	.	.
Watts, Kim et al. (1992)		.	.	.	.	.	.	.	.	.	.
Lamming (1993)	Supply evolution, partnerships	.	.	x	.	.	x	.	x	.	.
Cox (1995); Cox (1998)	Critical assets, uncontested markets	.	.	.	.	.	.	x	.	x	.
Fitzpatrick (1996)		.	.	.	.	.	.	x	.	.	.
Ramsay (2001)	Strategic (ir)relevance, resources	.	.	.	.	.	.	x	.	.	.
Kiser (1976)		.	.	.	.	.	.	.	.	.	.
Rajagopal and Bernard (1993; Rajagopal and Bernard (1994)		.	.	x	.	.	.	.	.	.	.
Dumond (1994)	Value-based purchasing	.	.	x	.	.	.	.	.	.	.
Raedels (1994)	Value-focused supply	.	.	.	.	.	.	.	.	.	.
Leenders and Flynn (1995)	Value-driven purchasing	.	.	.	.	.	.	.	.	.	.
Scheuing (1998)	Value-added purchasing	.	.	x	.	.	.	.	.	.	.
Telgen and Sitar (2001)	Value-based purchasing	.	.	x	.	.	.	.	.	.	.

²⁶ Using the premises of the ten schools outlined in Mintzberg, Ahlstrand et al. (1998).

viewpoints from multiple schools. This author is unaware of any systematic way to blend multiple schools' implicit definitions of value. Secondly, adopting a single school's definition of strategic management requires adopting its implicit definitions or theory of value. This author asserts that any such selection poses considerable risks. By selecting a 'commonly accepted' school (e.g. the power school is often reflected in purchasing literature), alternative, useful and commonly used definitions of value (see Table 2B) would be ignored. The result would be that this thesis would advance a particular school's theory of value-based supply strategy which may (or may not) be reflected by the case companies studied (i.e. what management teams actually do). Thirdly, authors in the purchasing literature who address value do not reflect the premises of any particular school of strategy. This is not necessarily problematic if those same authors outline the principles of value they adopt. Unfortunately they do not. Yet lacking an adopted school of strategy or an explicit framework for value, it is unclear how to align purchasing's "value-adding activities" with the strategy of a particular firm. This author aims to provide such a value framework²⁷.

2.4 Strategic alignment of cascading objectives within the firm

Whilst the terminology used may differ, authors in the strategic and purchasing literatures often reference three major components when discussing the strategic management process. These components include: (a) the goals and objectives of the firm; (b) the plans for achieving those goals; and (c) the policies that constrain and/or guide their implementation²⁸. Spekman (1981) refers to these components as strategy formulation, strategy implementation, and strategy evaluation – with corporate and purchasing objectives feeding all three (see Figure 2A). Pearson and Gritzmacher (1990) label them strategy formulation, strategy implementation, and strategy control (See Figure 2B). Watts, Kim et al. (1992) identify three broad groupings consisting of (1) goals and objectives; (2) policies and plans for achieving those goals; and (3) the range of business the company is to pursue. Lysons (1996) labels the three components strategy formulation, strategy

²⁷ The empirical Integrated Value Framework is presented in Section 9.4.

²⁸ See Section 4.3 for an important discussion of authors who include all three components, i.e. (a), (b) and (c), versus those that include only (c).

implementation and strategic evaluation and control²⁹ (see Figure 2C). Robson (1997) labels the three strategic analysis, strategic choice and strategic implementation and asserts that they are inter-linked (see Figure 2D).

The authors also generally agree upon three different *levels* of strategic management within the firm: (a) corporate (b) business and (c) operational. Browning, Zabriskie et al. (1983) advance a six-step strategic management model consisting of these three levels (see Figure 2E). Watts, Kim et al. (1992:5) refer to the “hierarchical chain of strategies ranging from corporate strategy to business unit strategy to functional area strategies” within the firm. Baily, Farmer et al. (1998)³⁰ introduce a strategic pyramid consisting of three levels – corporate, business and operational – with corporate strategy at the apex. Ryans and Weinberg (1981) in turn apply the three level – strategic, tactical and operational – model to describe the management of a particular activity (i.e., sales)³¹.

In all cases the strategic management process necessitates the prioritization, tiering and alignment of interrelated objectives for the organisation. These concepts are not new, having been advanced much earlier in the strategic literature. Granger (1964:63) notes that ‘there are objectives within objectives, within objectives’. He asserts that companies operate based upon a hierarchy of objectives proceeding ‘in concept from the very broad to the specific’ page 65. See Figure 2F. More recently, Kaplan and Norton (1992) popularized the concept of an organisation-wide Balanced Scorecard with cascading objectives. They propose a mix of metrics emphasizing four *interrelated* groups (financial, customer-related, operations-related, innovation-oriented) whilst asserting the *primacy* of the financial³².

²⁹ Lysons (1996:xiii) notes his text “covers the new syllabuses of the Chartered Institute of Purchasing and Supply Management in respect to the Foundation Stage subject ‘*Introduction to Purchasing and Supply Management*’ and the Professional Stage (Core Subjects) of *Purchasing and Supply Management I: Strategy and Purchasing and Supply Chain Management: Tactics and Operations...*” The framework thus can be considered the purchasing profession’s view of the strategic management process.

³⁰ This viewpoint may also be assumed to be a purchasing profession ‘standard’ since it has the tacit endorsement of The Chartered Institute of Purchasing and Supply (who are co-publishers of the text).

³¹ Ryans and Weinberg (1981) note: “Three stages are specified because this number seems to best capture the levels of sales force decision making, and the decisions at each stage tend to be the responsibility of, or to involve, different persons. At the strategic level, decisions are made by the top management of the company or business unit. At the tactical level, decisions are typically made by senior sales management but are frequently implemented by managers lower in the sales organization. At the operational or implementation level, the focus is on the salesperson, although many of the decisions are made and influenced by sales management” Ryans and Weinberg (1981) in Enis, Cox et al. (1990:529).

³² ‘The financial objectives serve as the focus for the objectives and measures in all the other scorecard perspectives. Every measure selected should be part of a link of cause-and-effect relationships that culminate in improving financial

Figure 2A: Model of strategic procurement planning
Source: Spekman (1981:4)

Figure removed

Figure 2B: Strategic management process
Source: Pearson and Grismacher (1990:92)

Figure removed

Figure 2C: The Strategic Planning Process
Source: Lysons (1996:22)

Figure removed

Figure 2D: Strategic management process
Source: Robson (1997:10,17)

Figure removed

Figure 2E: Strategic management model
Source: Browning, Zabriskie *et al.* (1983:21)

Figure removed

Figure 2F: Hierarchy of objectives in terms of level of need or activity
Source: Granger (1964:66)

Figure removed

It is over this point – the primacy of the financial objective – that the authors diverge. Granger (1964) cautions against assuming any overriding consideration or firm objective:

In this framework it is not helpful to think there is one overriding consideration, such as “profit”, since we must also concede in the next breath that another objective is to ‘stay within the law’. Profit may indeed be the factor to be maximized in a particular case, but it cannot be viewed as the sole objective. Granger (1964:65)

He explicitly appeals for *balance* as well as *clarity* when formulating objectives. A decade earlier Drucker (1955) similarly noted that profits – the outcome of the financial objectives of the firm – are a necessary but insufficient purpose of the firm. Drucker asserts that financial outcomes cannot therefore be the *primary* objective of strategy:

This does not mean that profit and profitability is not the purpose of business enterprise and business activity, but a limiting factor on it. Profit is not explanation, cause or rationale of business behaviour and business decisions, but the test of their validity. ... We do not learn anything about the work of a prospector, hunting for uranium in the Nevada desert, by being told that he is trying to make his fortune. We do not learn anything about the work of a heart specialist by being told that he is trying to make a livelihood, or even that he is trying to benefit humanity. The profit motive and its offspring, maximization of profits, are just as irrelevant to the function of a business, the purpose of a business and the job of managing a business. Drucker (1955:51)

In contrast Cox (1998) places profits squarely at the centre of the firm’ purpose, i.e “its *raison d’être*”. Rich and Hines (2000:153) cite Imai (1986) who avoids the debate through semantic *legerdemain*³³ – agreeing with both Drucker (1955) and Cox (1998) in the process!

The ultimate goal of a company is to make profits. Assuming that this is self-evident, then the ‘superordinate’ goal of the company should be such cross-functional goals as quality, cost and scheduling (quantity and delivery). Without achieving these goals, the company will be left behind by the competition because of inferior quality, higher costs, and will be unable to deliver the products in time for the customers. If these cross-functional goals are realized, profits will follow. Imai (1986)

This author will defer discussion of multiple objectives³⁴. For the moment the reader is asked to assume that the organisation has arrived at a set of objectives and that the objectives are grounded in the underlying value discipline (Treacy and Wiersema (1993)) of the firm³⁵. Ramsey (1976) proposes such a normative

³³ He distinguished between ultimate goals and superordinate goals. The Concise Oxford Dictionary (10th edition) defines ultimate as “being the best or most extreme example of its kind” and superordinate as “a thing that represents a superior order or category within a system of classification”. If Imai (1986) intends a hierarchy of goals with ultimate above superordinate, he contradicts himself by concluding that ultimate goals flow *from* superordinate goals. Perhaps semantic nuance is lost in translation from the Japanese.

³⁴ Multiple objectives will be discussed in Section 3.1.

³⁵ This assumption is taken from Kaplan and Norton (2001), originators of the Balanced Scorecard. The Balanced Scorecard and its underlying premises will be discussed in detail in Sections 3.3 and 3.5.

framework with “corporate value objectives” at the apex feeding corporate performance objectives and corporate strategy. These in turn cascade down throughout the organisation (see Figure 2G). His definitions of corporate value objectives, corporate performance objectives and corporate strategy are consonant with Treacy and Wiersema (1993)’s concept of value disciplines:

Corporate value objectives are general, philosophical statements for direction and operation of the firm that serve as long-range guidelines. They are not concerned with measurement or implementation techniques. Corporate performance objectives are concerned with measurement and goal values of the specific attributes of corporate value objectives and corporate strategy. . . . Corporate strategy, as it is used here, is concerned with major patterns of actions to carry out the corporate value objectives. Ramsey (1976:172-173)

The aim of the strategic management process then is to configure properly the firm’s actors, activities and resources so that they are *aligned* with the firm’s “value objectives” or selected value discipline. Thus values (and their proper definition) are the foundation of corporate strategy.³⁶ What then constitutes *alignment*?

Porter (1980) conceptualizes strategic alignment as a wheel with the goals of the organisation at its centre and the functional areas of the firm radiating out as spokes. He notes that functional policies must reflect the hub (i.e. the firm’s set of objectives) whilst simultaneously connecting with each other ‘or the wheel will not roll’. The appropriateness of the competitive strategy (which consists of corporate, business and operational objectives) ‘can be determined by testing the proposed goals [the hub] and policies [the spokes] for consistency’ Porter (1980:xvii). He proposes a series of questions based on Andrews (1971) to test internal consistency, environmental fit, resource fit and implementation. Spekman (1981) later links these same tests of consistency to the procurement planning process. Watts, Kim et al. (1992) also appeal to “consistency” when linking purchasing with corporate competitive strategies and with other functional strategies principally manufacturing. They advance a multi-level cascade-like model with competitive strategy at the apex and tactical supply decisions at the base (see Figure 2H). Keeney (1992) also advances a cascade-like model with *strategic objectives* at the apex, *fundamental (ends) objectives* in the centre and

³⁶ See Sections 2.1 and 2.2 for additional references to value as the basis of competitive advantage and competitive strategy.

**Figure 2G:
Recommended framework for intra-level objective and strategy interaction for the
firm**

Figure removed

Figure 2H: Purchasing: The Missing link to corporate strategy
Source: Watts, Kim and Hahn (1992:5)

Figure removed

FIGURE 2I: Rich and Hines (1997:76,79)

**The Alignment of the Operating Environment
and Management Activities**

The Three Pillars

Figure removed

The Operating Environment of the Supply Chain

**The Interaction of the Three Pillars
With the Operating Environment of the
Supply Chain**

Figure 2J: The Four Pillar Model
Source: Rich and Hines (2000) in Hines et al. (2000:116)

Figure removed

means objectives at the base³⁷. For the purposes of this thesis *strategic alignment* is defined as *the degree of congruence³⁸ between a firm's strategic management process and its adopted value-based approach to competition*. The concept of congruence is grounded in “strategic fitness”³⁹ Porter (1996); “appropriateness”⁴⁰ Porter (1980), Mintzberg and Quinn (1991), and Cox (1998); and ‘consistency’ Andrews (1971), Porter (1980), Spekman (1981) and Watts, Kim et al. (1992).

Whilst the antecedents of the notion of congruence can be easily traced in the literature, the realization of congruence between the firm's value objectives and the components of the strategic management process is quite difficult. This is particularly true for the purchasing organisation. Watts, Kim et al. (1992) highlight the difficulties faced by purchasing in achieving this state:

It has been widely accepted for years that the fundamental purpose of the purchasing function is to acquire the right quantity of the right items (quality and design) required in manufacturing the products at the right time and at the right price. These four elements make up the core of any purchasing strategy – and they are consistent with the other functional and corporate level strategies. However, the basic problem of implementing this seemingly simple task has been in defining the term right, because the definition is highly situational and dynamic. In other words, each company may call for a different definition and, in many cases, the definition of right within a given company changes as the environment changes. It then logically follows that the definition of right in purchasing strategy must be consistent with the other functional area goals and objectives, and in turn they must be consistent with the corporate competitive goals and objectives. Watts, Kim et al. (1992:5)

To the above impediments, Lysons (1996) adds the fact that certain “rights” are irreconcilable. ‘It may be possible to obtain the right quality but not at the right price Purchasing objectives have therefore to be balanced according to the overall corporate strategy and requirements at a given time’ Lysons (1996:12). The firm, therefore, needs a more dynamic approach to achieve *strategic resonance* which Brown, Lamming et al. (2000:269) define as ‘an ongoing, dynamic, strategic process whereby customer requirements and organisational capabilities are in harmony and resonate’. They note that strategic resonance lies beyond strategic fit⁴¹; unfortunately they do not outline the process to achieve this

³⁷ See Figures 6C. Keeney (1992)'s 'Value-Focused Thinking Model' will be reviewed in detail in Section 6.1.

³⁸ The Concise Oxford Dictionary (10th edition) defines congruent as ‘in agreement or harmony; identical in form (geometry)’.

³⁹ Section 2.1.

⁴⁰ See Section 2.2.

⁴¹ ‘Strategic resonance is more than strategic fit—a term which has often been used (rightly in the past) to describe the “fit” between the firm's capabilities and the markets it serves. Strategic resonance goes beyond that. Strategic fit may be likened to a jigsaw where all parts fit together. This is a useful metaphor but it can have a very static feel to it. In strategic fit it is as if once the ‘bits’ are in place, the strategic planning is done. By contrast strategic resonance is a dynamic, organic

state other than observing it is a dynamic rather than static process. Rich and Hines (1997) do advance a process framework – the Three Pillar Model of Supply Chain Management (see Figure 2I)⁴² – for achieving dynamic alignment between purchasing and corporate strategy. Their approach draws from *policy deployment* techniques (which is an English translation of the Japanese term *Hoshin Kanri*).

2.5 Policy deployment

Hoshin Kanri is the Japanese expression for an organizing framework for the strategic management process. Mulligan, Hatten et al. (1996:484) state that the literal translation of *Ho* is “method” and *shin* is “shiny needle” or “compass”. The image is one of a ‘beacon that points the way or sets strategic direction’. They state that the most meaningful English translation of the Japanese term *Hoshin* is ‘methodology for strategic decision setting’ page 478. They also state that *Kanri* means management or control. The Japanese expression *Hoshin Kanri* thus expresses the union of two interdependent parts – the strategic and the operational – into a single management process.

Hoshin Kanri is concerned with four primary tasks. ‘First it focuses an organisation’s attention on corporate direction by setting, annually, a vital few strategic priorities; secondly, it aligns these with local plans and programmes; thirdly it integrates them with daily management; and finally it provides for a structured review of their progress’ Witcher and Butterworth (1999:323). Its roots lie in the 1950s when the Japanese combined quality control and management by objectives into total quality control which the West adopted as total quality management⁴³. Rich and Hines (1997:78) claim that the process can be seen ‘to represent the application of total quality management within the strategic management environment’. Witcher and Butterworth (1999) note that *hoshin kanri* overlays the four-stage FAIR (*focus, alignment, integration, review*) strategic management process on top of the four-step PDCA (*plan, do, check, act*) cycle taken from the TQM movement (see Figure 2K).

process, which is about ensuring continuous linkages and harmonization between the market and the firm’s operations capabilities, the firm’s strategy and operations capabilities, all functions and levels within the firm’ Brown, Lamming et al. (2000:269). This thesis’s definition of the strategic management process supports the above.

⁴² Rich and Hines (2000:116) later rename the framework the Four Pillar Model after elevating Policy Deployment to a separate, additional pillar (see Figure 2J).

⁴³ Total quality management (TQM) will be reviewed in Section 5.2.

The strategic management cycle is an annual one which begins when corporate management acts to follow up the previous year's experience and modifies the strategic focus for the coming year; this is expressed as the 'few vital objectives', or sometimes as programmes for handing on to business unit level. The cycle next turns to the 'plan' phase when the vital few are aligned with annual plans at local level and are deployed through a business unit. The 'do' phase of the cycle is the integration of the vital few into daily management. The 'check' is a review of the annual performance, and data from this are fed back into the 'act' phase and so the cycle starts over. Witcher and Butterworth (1999:324)

Figure 2K: The Stages of strategic management – FAIR and PDCA
Source: Witcher and Butterworth (1999:324)

Figure removed

Hoshin-style planning seeks to unite the entire firm in the pursuit of common goals. As a result, virtually all members of the firm are included in the decision-making process. However Mulligan, Hatten et al. (1996) observe that the process progresses in a 'hierarchically stratified' manner:

Senior management is chartered with setting the long-term vision and defining the goals of the organization. Line management negotiates with senior management to establish tangible goals which will signify the organization's achievement of these objectives. Implementation teams are empowered to set schedules and execute the programs needed to meet middle management's goals. Mulligan, Hatten et al. (1996:478-479)

Lamming (1996) distinguishes between "cascade" and "intervention" strategies. See Figure 2L. He contrasts the governing thought involved in a cascade strategy ('Do as I say') with that of an intervention strategy ('Do as I do'), highlighting two very different views of inter-firm power/hierarchy with important ramifications for "double-loop" organisational learning⁴⁴. He contrasts these two customer-centric supplier development strategies with the vertical, two-way development strategy characteristic of organisational learning occurring within advanced supply systems.

⁴⁴ See Chapter 4.2 for a discussion of "double-loop" versus "single-loop" organisational learning.

The process of senior management working with line management to agree on business objectives is called catch-ball or CRIP (Catch, Reflect, Improve, Pass). The visual metaphor is one of children⁴⁵ in a circle passing a ball amongst themselves. In a similar way, the CRIP process is designed (a) to guarantee an iterative process; (b) to encourage positive and negative input from individuals up and down the firm's hierarchy; and (c) to achieve consensus.

Rich and Hines (1997) go on to link policy deployment with cross-functional management and with supplier enablement and development (the other two pillars of their framework). Their concept of cross-functional management is similar to process-based thinking advanced by the reengineering movement. Their concept of supplier enablement and development is grounded in lean operations techniques⁴⁶ and Japanese-derived concepts of relationship-driven interactions with suppliers.

Cox argues against the Rich and Hines (1997) framework in support of a more contingent approach to aligning corporate and purchasing strategies. He rejects:

The view [presented by Rich and Hines (1997)] that there can be one operational approach and methodology for the improvement of supply management in all companies and, therefore, one route to strategic elevation. [Rather, Cox and Lamming (1997)] would argue that the Toyota or Japanese model, with its focus on long-term and collaborative supply relationships, may be appropriate but only under certain conditions and certainly not for all possible supply circumstances. Cox and Hines (1997:9)

However, Hines counters that 'the general framework of policy deployment, cross-functional management and supplier integration is widely applicable but with markedly different applications depending upon particular circumstances' Cox and Hines (1997:9).

⁴⁵ This author highlights the danger of implicitly adopting a parent-child hierarchical relationship.

⁴⁶ Lean thinking will be reviewed in detail in Sections 5.2 through 5.5.

**Figure 2L: Cascade and intervention strategies in supplier development
versus two-way vertical customer supplier development**
Source: Lamming (1996)

Figure removed

This author observes that the Three-Pillar Framework mirrors the three different *levels* of strategic management within the firm – corporate, business and operational – that were identified in the previous section. This author also observes that although Cox argues against ‘one operational approach’ (see Cox and Lamming (1997)) his critique of the Three Pillar Framework focusses myopically on the third pillar: supplier integration and development. This author asserts that the first two pillars – policy deployment and cross functional management – are in fact very Western business concepts which need not be understood in a Japanese management context. The concept of policy deployment is equally supported by the Balanced Scorecard literature⁴⁷ which originated from two professors at the Harvard Business School; the concept of cross functional management by the business process reengineering movement⁴⁸ which was popularized in large part by Western consultancies. To summarize, this author concludes that the first two pillars of Rich and Hines (1997)’s framework can be used contingently without forcing a particular supply strategy / approach.

2.6 Conclusion

This chapter began the author’s detailed discussion of the five value first principles guiding this thesis’s research. Specifically this author discussed the first of the five principles: *align purchasing strategy with corporate strategy*. Accordingly he examined several key concepts underlying the area of strategic management. This author defined *competitive advantage* and discussed its central contribution towards business success; defined *competitive strategy* and reviewed its generic manifestations in business; defined the *strategic management* process found in companies, and outlined the key *elements* of the strategic management process; discussed the *cascading objectives* associated with different *levels* of the strategic management process, and defined *strategic alignment* of those objectives; and introduced the concept of *policy deployment*.

⁴⁷ The Balanced Scorecard will be reviewed in Section 3.3

⁴⁸ Business process reengineering will be further referenced in Section 5.3 in the context of discussing achieving value alignment within value streams.

The proceeding chapter will continue the discussion of the five value first principles. In order to *align purchasing strategy with corporate strategy* (the first principle), the literature asserts that one *balance multiple objectives* (the second principle) across the firm. As support for this assertion, this author will discuss how firms operate according to *multiple objective functions* rather than a *single objective function*; will examine how *stakeholders satisfy objective functions* given the presence of *bounded rationality* and a *hierarchy of needs*; will explore the *Balanced Scorecard*, an increasingly popular management tool used by firms to improve strategic alignment; and will discuss its use in *supply management*.

CHAPTER THREE:
DISCUSSION OF VALUE FIRST PRINCIPLES
‘BALANCE MULTIPLE OBJECTIVES’

3.0 Purpose

In the preceding chapter, this author began a detailed discussion of the five value first principles guiding his research. He reviewed the first of the five principles: align purchasing strategy with corporate strategy. Accordingly he examined several key concepts underlying the area of strategic management.

This chapter continues his discussion of the five value first principles. In order to align purchasing strategy with corporate strategy (the first of the five principles), the literature asserts that one *balance multiple objectives* (the second of the five principles). As support for this assertion, this author will review the academic literature in order to:

1. Discuss whether firms operate according to a *single objective function* or *multiple objective functions*;
2. Introduce and define the concepts of *satisficing* objective functions across *stakeholders* given the presence of *bounded rationality* and a *hierarchy of needs*;
3. Explore the *Balanced Scorecard*, an increasingly popular management tool used by firms to improve strategic alignment across stakeholders;
4. Review the evidence supporting a *stakeholder approach to management*;
5. Discuss the Balanced Scorecard as an emerging tool in supply management.

3.1 Managing the firm: single versus multiple objectives

The question of whether a firm operates according to a single objective or set of multiple objectives has been discussed extensively in the literature. According to the *neoclassical theory of the firm*¹, the economic enterprise has only a single objective – usually assumed to be the maximisation of its market value or of its profits. The firm is viewed as a holistic entity; all its members work solely towards that particular objective. The firm is assumed to have perfect information with which it can assess all relevant decisions concerning what and how much to produce.

¹ See also discussion of theories of the firm in Section 4.4.

The firm's *production function* describes the multiple ways that production inputs can be combined to create outputs. The firm selects whichever combination yields the greatest economic return.

Combining marginal revenue and marginal costs, we see that the cost of producing an additional unit falls to a trough and then rises, while the revenue to be gained from an additional unit's sale either remains constant throughout the range of production (perfect competition) or falls as productivity expands [monopolistic competition, oligopoly, monopoly]. Thus, in the short-run, businessmen will find one level of output, and only one, where the rising cost of producing additional output equals the constant or falling revenue to be gained from its sale. At this output total profit is maximized. Averitt (1968:82)

Neoclassicists hold that the price system provides all information needed to make those production decisions which maximize the firm's profits.

Instead of focusing on the firm's production function, *transaction cost economics* (TCE)² 'adopts John R. Commons's (1934) proposition that the transaction be made the basic unit of analysis' Williamson (1991:93). Coase (1937) is credited with establishing the school's foundational thinking by questioning why organisations even exist if market prices – as posited by the *neoclassical theory of the firm* – provide the sufficient co-ordinating mechanism to drive the firm's production resources and decisions. He concludes that the price mechanism must not provide an economically efficient mechanism for co-ordinating transactions in all situations.

Outside the firm, price movements direct production, which is co-ordinated through a series of exchange transactions on the market. Within a firm, these market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur/co-ordinator, who directs production. It is clear that these are alternative methods of co-ordinating production. Coase (1937:388)

Coase observes that the 'distinguishing mark of the firm is the supersession of the price mechanism', and recognises the cost of its use. Firms incur search costs (to discover what relevant prices are) and contracting costs (to negotiate and to conclude a separate contract for each exchange transaction which takes place across markets). The implicit objective of the firm is the minimisation of the total transaction costs incurred.

² See also discussion of theories of the firm in Section 4.4.

Coase provided seminal contributions to a large school of management thinking broadly referred to as the Chicago School of Economics³. His thinking influenced Alchian and Demsetz (1972) whose definition of the firm is derived from Coase's characterization of the firm as a set of contracts. Their definition reflects the neoclassical concern with the firm's production function in which there is:

(a) Joint input production, (b) several input owners, (c) one party who is common to all the contracts of the joint inputs, (d) who has rights to renegotiate any input's contract independently of contracts with other input owners, (e) who holds the residual claim, and (f) who has the right to sell his contractual residual status. Alchian and Demsetz (1972:783)

Jensen and Meckling (1976:311) assert that contractual relations are 'the essence of the firm, not only with employees but with suppliers, customers, creditors, etc.'. The firm, therefore can be viewed as a 'nexus for contracting relationships ... characterized by the existence of divisible residual claims on the assets and cash flows of the organization without permission of the other contracting individuals' page 311. They note that whilst this definition of the firm has 'little substantive content ... it focuses attention on a crucial set of questions – why particular sets of contractual relations arise ... and what the consequences of these contractual relations are....' Page 311.

Unfortunately this lack of "substantive content" weakens the ability of any subsequent theory of management to explain or predict what managers *should* do:

Viewing the firm as the nexus of a set of contracting relationships among individuals also serves to make it clear that the personalization of the firm implied by asking questions such as 'what should be the objective function of the firm' or 'does the firm have social responsibility' is seriously misleading. The firm is not an individual. It is a legal fiction which serves as a focus for a complex process in which the conflicting objectives of individuals (some of whom may 'represent' other organizations) are brought into equilibrium within a framework of contractual relations. In this sense the 'behavior' of the firm is like the behavior of a market, i.e. the outcome of a complex equilibrium process. We seldom fall into the trap of characterizing the wheat or stock market as an individual, but we often make this error by thinking about organizations as if they were persons *with motivations and intentions* [emphasis added]. Jensen and Meckling (1976:311-312)

This view is supported by Demsetz (1983:377) who notes that one should not 'confuse the firm of economic theory with its real-world namesake. The chief

³ 'In a nutshell, the two main characteristics of Chicago School adherents are: (1) belief in the neoclassical price theory to explain observed economic behaviour; and (2) belief in the efficacy of free markets to allocate resources and distribute income. Correlative with (2) is a tropism for minimizing the role of the state in economic activity'. *The New Palgrave Dictionary of Economics* (1998:413)

mission of neoclassical economics is to understand how the price system coordinates the use of resources, *not to understand the inner working of real firms*' [emphasis added].

Yet Jensen and Meckling (1976) advance a normative framework for maximizing the market value of the firm (i.e., a presumably "real world" objective) based on a series of neoclassical assumptions which do not reflect real-world situations. For example, their model assumes that (a) all outside equity shares are nonvoting, (b) there exists a single manager (the peak coordinator) with ownership interest in the firm, etc., and (c) no outside owner gains utility from ownership in a firm *in any way other than through its effect on his wealth or cash flows*. Demsetz (1983) appears to relax this last restriction, broadening the potential motives or objectives of individuals within the firm. However, he ultimately subjects all considerations to a profit maximizing function – even discriminatory behaviour – thus returning to Jensen and Meckling's unreal assumption:

The compensation received by the owner-manager of such a firm potentially contains three components—pecuniary wages of management, known amenities of office, and profit of owner. The behavior of such an owner-manager surely is guided by utility maximization, not simply the pursuit of profit. One owner may prefer spotlessly clean surroundings for the large part of the day he spends at the office. Another values managing a larger or faster growing firm. A third values associating with laborers who practice a particular religion or have a particular skin color. Nothing in the theory of the price system bars the owner from indulging these desires. *The theory of competitive markets, which is based on the full knowledge of such consumption, requires only that he pay for these indulgences, just as if he were purchasing them as a consumer.* [emphasis added] Demsetz (1983:378)

Drucker (1955) earlier contested a single, profit-maximizing function for the firm⁴.

A business cannot be defined or explained in terms of profit. The average businessman when asked what a business is, is likely to answer: "An organization to make a profit". And the average economist is likely to give the same answer. But this is not only false; it is irrelevant. Similarly, there is total bankruptcy in the prevailing economic theory of business enterprise and behaviour: the theory of the "maximization of profits" – simply a complicated way of phrasing the old saw of "buying cheap and selling dear". This theorem may adequately explain how Richard Sears [founder of US retailer *Sears*] operated. But it is bankrupt precisely because it cannot explain how Sears, Roebuck – or any other business enterprise – operates, or how it should operate. Drucker (1955:50)

Moreover, he contested the assertion that there is *any* single objective function for the firm⁵. To believe so was folly:

⁴ See also Section 2.4 where Drucker (1955) asserts that financial outcomes cannot be the *primary* objective of strategy.

⁵ See also Section 2.4 where Granger (1964) argues against a single objective for the firm.

Most of today's lively discussion of management by objectives is concerned with the search for the one right objective. This search is not only likely to be as productive as the philosopher's stone; it is certain to do harm and to redirect. ... To manage a business is to balance a variety of needs and goals. This requires judgement. The search for the one objective is essentially a search for a magic formula that will make judgement unnecessary. But the attempt to replace judgement by formula is always irrational; all that can be done is to make judgement possible by narrowing its range and the available alternatives, giving it clear focus, a sound foundation in facts and reliable measurements of the effects and validity of actions and decisions. And this, by the very nature of the enterprise, requires multiple objectives. Drucker (1955:82-83)

This viewpoint is supported by the industrial buying literature:

Industrial buying behavior, however, is a complex process which cannot be captured by a single explanatory variable such as price, total cost, reciprocity, or ego enhancement. Any reasonably-complete model of industrial buying behavior must be capable of dealing with the complexity of industrial buying decisions which involve many people (users, deciders, influencers, and buyers), are technical in nature, are made over long periods of time, and require complex interaction of personal, interpersonal, organizational, and environmental factors in determining buyer response to marketing effort. Webster and Wind (1972:5)

Wind and Webster (1972) explicitly refute the neoclassical assumptions upon which Alchian and Demsetz (1972) and Jensen and Meckling (1976) base their theories of organisational behavior:

It thus can be hypothesized according to economic theory that the business decision maker—the buyer—as a rational economic man tends (invariably) to making buying decisions which help the firm achieve its goal—profit maximization. [T]he motivational and cognitive assumptions of the theory appear unrealistic. As to the motivational assumption, profit maximization is believed to be only one among many goals of business firms. As to the cognitive side, the assumption of certainty and perfect knowledge can be challenged as unrealistic even when replaced by an assumption that the probability distribution of future events is known. Wind and Webster (1972:7)

Drucker, Wind and Webster are supported by *behavioral economics and finance*⁶ which documents neoclassically imperfect market phenomena, and by the

⁶ See Section 5.1 for a detailed review of economic theories of value. Although a complete examination of *behavioral economics and finance* is beyond the scope of this chapter and thesis, this author summarises some of its chief adherents below. Richard Thaler is frequently cited as the originator of *behavioral economics*. Behavioural economists contend that consumer behaviour is not perfectly rational as asserted by *Chicago School of Economics* theory. Thaler (1980:39) documents economically "anomalous behaviours" i.e., buying prices that are much less than selling prices, consumers paying attention to sunk costs, consumers eliminating options to reduce self-control problems, etc. Thaler (1980:39) asserts that 'in these situations [neoclassical] economic theory will make systematic errors in predicting behavior'. Tversky and Kahneman (1981) attribute such behaviour to 'the use of judgmental heuristics ([decision] shortcuts) [which] lead to systematic errors or biases' Thaler (1991: xii). Tversky and Kahneman (1981) posit models where the value-function (observed prices) sometimes lies above and sometimes below the predicted price-function (theoretical prices). Anderson, Thomson et al. (2000) assert that such *reference-dependent models* have three distinguishing characteristics: *reference dependence*, *loss aversion*, and *diminishing sensitivity*. 'Reference dependence captures the notion that individuals define alternatives that they consider as gains and losses relative to a reference point, rather than in an absolute sense. *Loss aversion* means that individuals will value differently alternatives that represent opposing deviations of the same magnitude from the reference point: the negative deviation will be seen as more of a loss than the positive deviation will be seen as a gain. Finally, *diminishing sensitivity* means that individuals will place smaller marginal value on same-size, incremental changes in prospects as differences from the reference point become greater' Anderson, Thomson et al. (2000:309). Woo (1992:1) observes: 'Within the neoclassical framework, value is found to be identical to price in the state of market equilibrium and is measured by it. No doubt the neoclassical framework rests upon the unreal assumption of taking the customer's preferences to be given'. He notes: 'The validity of these unreal assumptions and the attendant reductionist methodology is, however, increasingly being called into question. ... If we take it that prices are formed during

*behavioural theory of the firm*⁷ (Cyert and March (1963)) which argues against the existence of a single objective function in the firm.

In contrast to the neoclassical theory of the firm and transaction-cost economics (TCE) which both presume organisational unity in the pursuit of the firm's single objective (be it maximizing profits or minimizing transaction costs), Cyert and March (1963) posit the existence of coalitions each pursuing its own interests. Under the *behavioural theory of the firm*, managers must contend with the interests of all coalitions, of all *stakeholders* in the firm, if the organisation is to function effectively and survive. Conflicting interests between stakeholders – shareholders, employees, managers, and suppliers – will create tension that is dissipated only through inter-organisational bargaining.

During this bargaining process both the composition and the general goals of the coalition are established. The bargaining power of each potential participant depends on how unique the contribution is that he can offer to the coalition. ... Such a coalition of participants need not have maximization of profits as its sole objective. In fact, the process of defining the goals of the organization is the first step in describing actual decision processes within the firm. The second step is to describe how the organization forms expectations upon which the decision processes are based. The third and last step is to describe the process of organizational choice. Douma and Schreuder (1998:86,89)

Unless the inducements offered to members of each coalition are greater in their view than the contributions they believe they are asked to make, the coalitions will not participate. 'Hence the organization will continue to exist only so long as the contributions are sufficient to provide inducements in large enough measure to draw forth these contributions' Douma and Schreuder (1998:86). The firm can thus be prevented from pursuing a neoclassical optimal strategy if members of an economic enterprise hold differing and potentially conflicting objectives.

Strategic management of the firm becomes in large measure the identification of agreed upon firm goals given the constraints imposed by the various stakeholders.

The preceding schools of thought were outlined to demonstrate that the business literature lacks consensus on the question of whether a firm does, can and/or

exchange and that exchange takes place when differences exist in valuation among the transactors in question, such differences in valuation must be attributable, at least in part, to the fact that different economic actors possess different valuations frameworks' Woo (1992:2). The reader is directed to Kahneman and Tversky (2000) for a detailed survey of the latest research in this area. See also Figure 5E where this author shows exchange as the link between utility-based and production-based definitions of value; exchange price is not, however, equivalent to either of these definitions of value. Anderson, Thomson et al. (2000) reference many of the above authors in their study of purchasing agents' behaviours. They support Woo (1992) concluding that 'a single utility function cannot explain the purchasing managers' decisions, and that separate value and price utility functions provide superior explanation' Anderson, Thomson et al. (2000:318).

⁷ See also discussion of theories of the firm in Section 4.4.

should have a single objective function. See Table 3A. This author outlined the three major positions in the literature concerning the firm's objective function: (I) the neoclassical theory of the firm and transaction cost economics which assume a unity of purpose within the firm towards achievement of a central (single) objective; (II) the market value movement which assumes multiple consumption and production objectives which are maximised across individuals based upon a common (single) economic function; (III) the stakeholder movement which assumes multiple and conflicting objectives which result in a negotiated agreed upon set of (multiple) objectives some or none of which may be optimised⁸. The supply management literature reflects the underlying value assumptions of position I whilst simultaneously pointing out the difficulties – reflective of positions II and III – purchasing encounters when operating under those assumptions.

This author noted that achieving congruence between a firm's value objectives and the components of its strategic management process was quite difficult particularly for a firm's purchasing organisation⁹. This difficulty stems principally from the following purchasing challenges – balancing (a) firm-wide versus business unit considerations; (b) process versus functional considerations; and (c) quantitative versus qualitative considerations. These challenges make it either very difficult (reflective of position II) or impossible (reflective of position III) to optimise a common objective.

Purchasing's attempt to minimize Total Cost of Ownership (TCO) makes this abundantly clear. Ellram (1993) notes that a formal TCO approach:

Explicitly recognizes cost factors in addition to price as part of the cost of doing business with a particular supplier. ... At a minimum, any TCO approach should include transportation costs, receiving costs, quality costs (inspection, rework, reject costs), purchasing administrative expenses, including management time, and of course, the cost of the purchased item. Ellram (1993:5)

This wider consideration set necessitates that purchasing often balance opposing and conflicting objectives: to reduce and standardize the quantity of supplied parts across the firm whilst respecting decentralized strategic planning by the

⁸ See Section 3.2 for a more detailed review of satisficing versus optimizing behaviours.

⁹ See Section 2.4.

Table 3A: Three major positions concerning the firm's objective function

Position	Major adherents	Assumptions about value when conceptualised / used as ...		
		... as a noun	... as a verb	... as an adjective
I. Unity of purpose within the firm towards achieving a central (single) objective	Neoclassical theory of the firm (e.g. 'maximise profit', Transaction Cost Economics (e.g. 'minimise transaction costs'))	<ul style="list-style-type: none"> •All the inputs involved in producing an items can be monetised and added up 	<ul style="list-style-type: none"> •Activities within the firm are based on availability of perfect information which can be obtained either costlessly or at a fee •Firm collectively performs the economic calculus to compare all possible alternatives actions •Owners of the firm are the operators of the firm 	<ul style="list-style-type: none"> •Actors in the firm viewed as <i>homo economicus</i> who perfectly implement the firm's objective function •Actors are completely rational; their individual objective functions are the same as that of the collective firm's
II. Multiple consumption and production objectives which are maximised across individuals based upon a common (single) economic function	Market value movement (e.g. 'maximise shareholder value')	<ul style="list-style-type: none"> •Utility drives valuation of an item •An individual's utility function can be monetised 	<ul style="list-style-type: none"> •Search costs are incurred by the firm in its attempt to obtain information •Firm is an aggregation of individuals each performing his / her own utility calculus to compare all possible alternatives actions •Owners of the firm not necessarily operators of the firm 	<ul style="list-style-type: none"> •Each actor is a consumer with a different objective function (utility) maximised subject to his/her individual financial constraints •Although what is desired by one consumer may not be desired by another, each individual rationally orders his/her own preferences
III. Multiple and conflicting objectives which result in a negotiated agreed upon set of (multiple) objectives some or none of which may be optimised	Behaviouralism; Stakeholder theory of the firm (e.g. 'satisfice across stakeholders')	<ul style="list-style-type: none"> •Utility drives valuation of an item •An individual's utility function may reflect a coalition's utility function •Many (but not all) parts of the coalition's utility function can be monetised 	<ul style="list-style-type: none"> •Search costs are incurred by the firm in its attempt to obtain information; coalitions reveal private information only if they receive sufficient incentives •Firm is an aggregation of coalitions each performing its own utility calculus •Owners and operators of the firm slightly overlap 	<ul style="list-style-type: none"> •Each actor is a member of one or more coalitions each with a different objective function (utility) •Each coalition rationally pursues its own interests; coalitions interests conflict •Coalitions bargain to find a 'best case' agreed upon objective function

business units (reflective of challenge a above); to factor “non-purchasing” related expenses beyond the initial purchase price into TCO calculations in the face of outdated functional performance measurement systems based principally on lower purchase price (reflective of challenge b above); and to include the “costs” of various activities even though they may be currently measured using qualitative versus quantitative metrics (reflective of challenge c above).

Not surprisingly Ellram (1993) notes that “selling” and implementing the TCO approach is difficult as a result of these factors. Interestingly she notes that a TCO approach may be more acceptable if the firm looks at “value” instead of “cost”.

There are several approaches a firm can take in implementing a TCO philosophy. First and foremost, the organization must move away from solely a price orientation, to grasp the idea that “total cost” may be much more important than price. To experienced TCO users, this may seem like an easy task. However, for a firm that has been operating in a highly price competitive market, focusing on supplier price reduction, TCO may be a very difficult concept to sell to others within the firm. Indeed, one of the firms studied found that in using the TCO approach, it had to avoid use of the term “cost.” Cost immediately drove the firm’s buyers to look at price, which is often the largest TCO cost element. Instead, they chose to use the term “value.” Ellram (1993:9)

She fails, however, to explain how merely re-labeling the term in purchasing’s purported objective function (i.e. optimise value versus optimise cost) will help the firm realize a new TCO philosophy that will overcome all three challenges described above. In effect, Ellram confronts the limitations of the incomplete definition of value she adopts.

Recall that value is incompletely conceptualized (and therefore incompletely managed) whenever it is defined solely as a noun (e.g. the ‘worth’ of an object), as a verb (e.g. the processes and activities employed by a firm to place a value on things) or as an adjective (e.g. the different actors’ perceptions of what is in fact valuable). Ellram attempts to devise a more complete notion of value by expanding its definition as a noun – from purchase price to Total Cost of Ownership. Unfortunately, redefining the expression “value” when used as a noun does not redefine its meaning when used as a verb or as an adjective. In addition, expanding the list of factors “added-up” to calculate an object’s production cost merely results in an expanded financial definition of value (i.e.

position I) and does not address non-financial considerations (i.e. utility) introduced by positions II and III.

Watts, Kim et al. (1992) note the difficulty of arriving at an appropriate definition of value which they label the four rights:

It has been widely accepted for years that the fundamental purpose of the purchasing function is to acquire the right quantity of the right items (quality and design) required in manufacturing the products at the right time and at the right price. These four elements make up the core of any purchasing strategy—and they are consistent with the other functional and corporate level strategies. However, the basic problem of implementing this seemingly simple task has been in defining the term right Watts, Kim et al. (1992:5)

Their emphasis on the four rights points to the need to move beyond financial value metrics. Like Ellram, however, they are primarily concerned with finding the appropriate definition of value as a noun. Other writers do touch on value's alternative usages¹⁰. For example, Farmer (1972:10) addresses its usage as a verb when he observes 'Many writers have commented on the difficulties associated with the reduction of the myriad of functional objectives within the company to a consistent corporate objective'. Fearon (1973) notes that:

The primary objective is to solve materials problems from a total organization viewpoint rather than from the viewpoint of any individual functions; to balance possible conflicting objectives of the various materials functions, to the net benefit of the organization as a whole. Many examples of the possible conflict among objectives could be cited. Purchasing desires to acquire items at lowest-possible costs, which often requires that large-tan-normal orders be placed to gain quantity discounts. However, one objective of inventory control is to generate high inventory turnover, and thus a low dollar investment in inventory. These two objectives conflict—a successful solution will require a balancing of the opposing objectives to achieve optimum or greatest total results for the organization. Fearon (1973:41)

King (1973:73) posits that 'There is no simple method for determining what purchasing decisions are optimal. The decision which best serves one set of objectives usually will not be appropriate for some other set of aims'. These authors all point towards the *process* or *activity* of valuation / managing value; their discussion of this process is more aligned with positions II and III of Table 3A than position I.

¹⁰ For example, value's usage as a verb will be considered in Chapter Four where this author discusses systems thinking; its usage as a noun and adjective, in Chapter Five where this author discusses economic theories of value; its usage as a verb, in Chapter Five where this author discusses continuous improvement in quality / lean thinking; and its usage as an adjective, in Chapter Six where this author discusses customer experiences and perceptions.

Based on the foregoing discussion and additional recent research¹¹, this author concludes that it is improbable that firms operate according to position I. Positions II and III more realistically reflect firm behaviour. Yet position II describes a firm composed of economically adept actors who are consciously aware of their utility functions, who can monetize their utility functions, and who consistently apply their utility functions – a firm whose members display *extraordinarily* rational behavior¹² and which therefore becomes increasingly difficult to imagine¹³. For the purposes of this thesis, this author adopts position III since it subsumes position II in the event that one actually encounters a firm satisfying position II's more restrictive economic criteria. *The firm is thus defined as a collection of stakeholder groups with multiple and (likely) conflicting objectives; these stakeholder groups negotiate an agreed upon set of objectives which collectively all individuals satisfy rather than maximize.*

3.2 Satisficing stakeholder objectives given bounded rationality and a hierarchy of needs

Clarke (1998) traces the roots of the concept of stakeholding to the early eighteenth century:

The Oxford English dictionary definition of stakeholding records the first use of the term in 1708 as a bet or deposit, "to have a stake in (an event, a concern, etc.): to have something to gain or lose by the turn of events, to have an interest in; especially to have a stake in the country (said of those who hold landed property. Hence specifically a shareholding (in a company). Clarke (1998:186)

He claims that a stakeholder theory of the firm has existed since the origins of industrialism: its philosophical antecedents dating back to the concepts of the co-operative movement and mutuality that appeared in the nineteenth century. A century later Berle and Means (1932) identified multiple interests within the modern corporation which needed to be balanced. They note that 'It is conceivable, indeed it seems almost essential if the corporate system is to survive,

¹¹ Peter Brewer and Thomas Speh of Miami University of Ohio cite a *CFO Magazine* survey that found that "although 91% of chief financial officers (CFOs) had a clear understanding of their company's vision, only 71 percent of executive managers, 40 percent of middle managers, and 3 percent of line managers did" Brewer and Speh (2001:50). The decreasing levels of awareness of the firm's mission at lower levels in these organisations suggest that all members of the firm may not in fact pursue a common objective.

¹² "Rejecting the narrow, mechanical *homo economicus* that serves as a basis for neoclassical theory, Richard Thaler [a proponent of behavioural economics] propose[s] that most people actually behave like ... people! They are prone to error, irrationality and emotion and they act in ways not always consistent with maximizing their own financial well being" Lowenstein (2001:68, 70).

¹³ Webster and Wind (1972:7) assert "[T]he firm of the economic theory of the firm is a simplified, non-realistic model of actual business firms. It has no complex organization, and no problems of management in general and management of human beings in particular".

that the “control” of the great corporations should develop into a purely neutral technocracy, *balancing a variety of claims by various groups in the community and assigning to each a portion of the income stream* on the basis of public policy rather than private cupidity [emphasis added]’ Berle and Means (1932:312).

Penrose (1959) is frequently credited with having laid the intellectual theoretical foundations for a stakeholder theory of the firm by envisaging the firm as a bundle of assets and relationships. However, the actual term “stakeholder theory” was first used in 1963¹⁴.

U.K. and U.S. companies have traditionally not followed a stakeholder approach to governance. Clarke (1998) contrasts Anglo-Saxon “stockholder capitalism” with Continental European “stakeholder capitalism” and Japanese “collective capitalism”. He traces the Anglo-Saxon concern for shareholder value to the particular conceptualization of property rights underlying the Chicago School of Economics. The Chicago School asserts the efficacy of free capital markets in allocating firm resources. Accordingly its adherents assert that all assets of public corporations should be viewed as property of the shareholders and the Board of Directors as the shareholders’ primary agent.

This shareholder theory of firm governance, however, is based on two important neoclassical economic assumptions: (1) the availability of perfect information and (2) the existence of a single utility function for the firm. Drucker (1955) and Wind and Webster (1972) contest the validity of these assumptions. They are joined by Milgrom and Roberts (1990) who describe a continual struggle within the firm to influence decision-makers through willful strategic misrepresentation and the restriction of information flows. They add *influence costs* to the costs of co-ordinating economic exchanges within the firm. Influence costs encompass not only the costs of filtering out good from bad information, but the opportunity costs of ‘individuals and groups within the organization [expending] time, effort and ingenuity in attempting to affect others’ decisions to their benefit’ page 170. Influence costs include the ‘inefficient decisions [that] result either directly from

¹⁴ Clarke (1998) asserts the term was first used at the Stanford Research Institute by Igor Ansoff and Robert Stewart. Ansoff (1965:33) describes the stakeholder theory of the firm as “maintain[ing] that the objectives of the company should be derived by balancing the conflicting claims of the various ‘stakeholders’ in the firm, managers, workers, stockholders, suppliers, vendors” [emphasis added].

these influence activities or, less directly, from attempts to prevent or control them' page 170. The above influence costs (and the resulting inefficient decisions) violate neoclassical assumption one.

Alchian and Demsetz (1972) focus on the costs of monitoring and the problem of opportunism. Although they support a *meta* profit-maximizing objective function for the firm¹⁵ and therefore may be classified as neoclassical adherents, they note that moral hazard can reduce firm output. Moral hazard describes the fact that individuals are tempted to shirk in order to receive the advantages of the group's efforts without contributing proportionately. Shirking is particularly acute whenever it is difficult or impossible to ascertain reliably an individual's particular contributions to group output. Individuals behave *rationaly* by shirking – they advance their own interests or goals even if their behaviour is not optimal for the group (and is not aligned with the single profit-maximising objective of the firm). The above shirking costs, however, violate neoclassical assumption two¹⁶.

Porter notes similar group behaviour within the firm. Interrelationships between business units can be costly because 'they require business units to modify their behavior in some way' Porter (1985:331). These costs include the *cost of compromise*:

Sharing an activity requires that an activity be performed in a consistent way that may not be optimal for either of the business units involved. ... The cost of compromise may include costs not only in the shared value activity but also in other linked value activities. ... That business units may in some way compromise their needs to share an activity is almost a given. The cost of compromise may be minor, or may be great enough to nullify the value of sharing. Porter (1985:332)

Insufficient returns may accrue to stakeholder group, who then refuse to co-operate, even if the total organisation realizes net competitive advantage.

In some cases, the net value of an interrelationship may even be *negative* from the viewpoint of one business unit because of the required compromise, but will be more the offset by a positive net value for other business units. For this reason and because of the natural bias in approaching interrelationships noted above, then, business units will often not readily agree on pursuing interrelationships that will benefit a firm as a whole. Porter (1985:335)

¹⁵ See Section 4.1.

¹⁶ In a footnote Jensen and Meckling (1976) claim that 'maximization subject to costs of information and of decision making' does not deny economically 'maximizing behavior' by the firm (and by inference does not deviate from neoclassically efficient behavior). Decision-making costs, however, may include 'influence costs' (Milgrom and Roberts (1990)) which may lead to inefficient decisions which were shown to violate neoclassical efficiency assumptions.

Rasmusen (1974) asserts that such conflicting objectives across business units *usually results* from decentralisation¹⁷. If alignment of goals across business units cannot or does not occur, however, neoclassical assumption two is violated and the optimization of shareholder objectives is prevented. In contrast to these unrealistic neoclassical assumptions the stakeholder theory of the firm posits that firms *satisfice* rather than maximize *objectives* across stakeholder groups in light of (1) bounded rationality and (2) a hierarchy of objectives.

Simon (1957) was one of the first authors to describe bounded rationality. “The capacity of the human mind for formulating and solving complex problems is very small compared to the size of the problems whose solution is required for objectively rational behavior in the real world” Simon (1957:xxvi). Bounded rationality describes human behaviour that is ‘intendedly rational, but only limitedly so’ Simon (1961:xxiv). Given bounded rationality managers *satisfice* objectives or “muddle through”¹⁸ using a process of logical incrementalism¹⁹ that does not optimize / maximize objectives.

Maslow (1943) provided the seminal foundation upon which a hierarchy of objectives could be based. He asserts that five sets of goals constitute basic human needs. This hierarchy of needs begins with the physiological (at the base of the pyramid) and ascends through safety, love, esteem and culminates with self-actualisation. Maslow asserts that humans are motivated to achieve or maintain the conditions necessary for meeting these basic satisfactions and that we do so in a particular order:

These basic goals are related to each other, being arranged in a hierarchy of prepotency. This means that the most prepotent goal will monopolize consciousness and will tend of itself to organize the recruitment of the various capacities of the organism. The less prepotent needs are minimized, even forgotten or denied. But when a need is fairly well

¹⁷ ‘It is necessary to make several assumptions about the behavior of the central and sector managers in order to implement decentralized planning Some of these assumptions can be summarized as follows: (1) Submanagers know and understand the preferences of top management. (2) Submanagers act as loyal members of the organization, pursuing the objectives of top management, and not their own. (3) Submanagers never retain or bias information. (4) Submanagers are able to foresee possible connections to proposals from other sectors. (5) Submanagers are indifferent to whether or not a proposal is accepted or rejected. None of these assumptions are easily satisfied’ Rasmusen (1974:156).

¹⁸ ‘Policy is not made once and for all; it is made and re-made endlessly. Policy-making is a process of successive approximation to some desired objectives in which what is desired itself continues to change under reconsideration. Making policy is at best a very rough process. Neither social scientists, nor politicians, nor public administrators yet know enough about the social world to avoid repeated error in predicting the consequences of policy moves. A wise policy-maker consequently expects that his policies will achieve only part of what he hopes and at the same time will produce unanticipated consequences he would have preferred to avoid’ Lindbloom (1959:86).

¹⁹ See discussion of Quinn (1980) in Section 2.2.

satisfied, the next prepotent (“higher”) need emerges, in turn to dominate the conscious life and to serve as the center of organization of behavior... Maslow (1943:394)

Maslow notes that his concept of hierarchy of needs has near universal application:

Certain basic needs are more urgent than others. This same hierarchy, or something very much like it, has been found to exist, for instance ... in the history of what labor unions have struck for, the order of urgency of the problems of the underdeveloped nations, the order of kinds of satisfactions and kinds of pay that upwardly mobile and economically successful individuals in the United States seek for, the order of importance of the human needs that supervisors and managers had better satisfy in our factors, and son on. That is to say, it looks like a universal individual and social principle. Letter to John D. Rockefeller III reprinted in Stephens (2000)

This author supports Maslow’s assertion²⁰, observing traces of his hierarchy of needs throughout the literature:

- In the value literature where Hartman (1958) advances a value hierarchy upon which he bases his theory of axiology.²¹
- In the marketing literature where Brown (1995) explicitly links Maslow’s hierarchy to the “stages of customer needs”²²; Gale (1994) advances a hierarchy of customer perceptions based on the product lifecycle; Woodruff and Gardial (1996) advance a hierarchy of customer perceptions based on means/end theory.²³
- In the strategy literature where several authors describe a tiering or prioritization of strategies²⁴.
- In the systems thinking literature where Checkland (1993:314) asserts that organisations ‘may be meaningfully treated as wholes built up of smaller entities which are themselves wholes’.²⁵
- In the purchasing literature where Adamson (1980) discusses purchasing’s potential role in supporting the firm’s prime strategy²⁶.

²⁰ Whilst noting the following *caveat* by Keirsey and Bates (1984): ‘It makes sense to say that we do not continually search for social ties, or safety, or food, when they are continuously supplied and can be taken for granted most of the time. We turn our interest to the achievement of esteem, as Maslow argues. But beyond this point we are wise to part company with Maslow. Not everybody is keen to actualize the Self, once liberated from the need for self-esteem. Not even most. Most people want something else entirely. Only the choleric [one of the four human temperaments described by Hippocrates] are concerned with making the Self real. It is not, then, that self-actualization is a step beyond self esteem; rather, it is a means to self-esteem. ... Self-actualization, far from transcending self-esteem, must be relegated to the position of but one of many routes to self-esteem’ Keirsey and Bates (1984:28-29). See Section 6.1 for a discussion of means-ends theory in the context of value objectives and Section 6.2 for a discussion of individual influences on the value assessment process.

²¹ Hartman (1958) and his theory of axiology will be reviewed in Section 6.1

²² Brown (1995) and marketing writers will be reviewed in Chapter Six.

²³ Gale (1994) and Woodruff and Gardial (1996) will be reviewed in Chapter Six.

²⁴ See Section 2.4.

²⁵ Checkland (1993) and systems thinking will be reviewed in Chapter Four.

²⁶ ‘A company’s composite strategy is a compound of many different decisions rather than a single plan of attack. It consists of a “hierarchy of prime strategies and a background of supporting strategies” Cannon (1968) *Business Strategy*

Unfortunately purchasing practices may not in fact support the firm's prime strategy. King (1973) notes that:

The purchasing executive suffers from the desire to pursue a number of conflicting objectives. ... It is precisely this problem that led one manager to remark that the much-discussed objective of 'buying the right quality, in the right quantity, at the right time, at the right price, from the right source' contains too many 'rights'. King (1973:73)

Such misalignment of purchasing with corporate objectives is observed by Reck and Long (1988)²⁷, Dumond (1991)²⁸, and St. John and Young (1991)²⁹. St. John and Young (1991) provide empirical evidence that suggests purchasing and production planning's day-to-day decision-making does not reflect the organisation's goals.

How can firms avoid such misalignment? St. John and Young (1991:19) assert that the "Use of formalized goal-setting processes in a firm appears to promote agreement on competitive goals among the operations managers". Japanese companies attempt to achieve consensus and alignment using a policy deployment approach (*hoshin kanri*) that "rolls out" objectives across their respective organisations³⁰. U.K. and U.S. corporations are increasingly adopting a similar approach albeit one originating in the West – the Balanced Scorecard.

3.3 The Balanced Scorecard

The Balanced Scorecard is a performance management tool that attempts to help the organisation explicitly prioritise its objectives and facilitate strategic alignment across the organisation against this hierarchy of objectives. Figure 3A.

and Policy, p. 9]. It is in this background of supporting strategies that a firm's procurement activities can play an important role in supporting (or working against) the firm's prime strategies' Adamson (1980:26).

²⁷ 'No single purchasing system can simultaneously concentrate its efforts on every competitive dimension to satisfy every customer group. Tradeoffs are inevitable. Certain qualities with the supply markets must be compromised to enhance the development of others. ... If purchasing is to become a competitive weapon in the battle for markets, purchasing personnel must set priorities and excel along the dimensions that are most important strategically' Reck and Long (1988:2-3).

²⁸ 'Today, many purchasing departments are evaluated primarily on the basis of cost minimization and internal operating efficiency; yet, this emphasis may not enable the department to meet the expectations that senior management seems to have set for purchasing, or to develop an environment that enhances an individual's productivity. Consequently, management must attempt to ensure that a performance measurement system is developed which creates a productive working environment and encourages the "right" [emphasis added] decisions by purchasing professionals' Dumond (1991:22).

²⁹ 'Key findings of the study are: (1) When faced with a routine problem requiring an immediate response, operations managers tend to agree on how to handle the problem whether or not they agree on the organization's goals. (2) When faced with a routine problem requiring an immediate response, the agreed-upon response is frequently inconsistent with the stated goals of the firm. (3) When evidence suggests that an operating policy needs to be changed, managers are unlikely to agree on how to change the policy. Agreement on competitive goals is not related to agreement on policy changes. (4) Managers who agree on goals are much more likely to agree on future oriented, long-range trade-off decisions than those who do not agree on goals. (5) Use of formalized goal-setting processes in a firm appears to promote agreement on competitive goals among the operations managers' St. John and Young (1991:19).

³⁰ See Section 2.5.

Robert S. Kaplan and David Norton of Harvard Business School described the framework in 1992 in their *Harvard Business Review* article “The Balanced Scorecard—Measures that drive performance”. They assert that the framework enables a firm to achieve:

A balance between external measures for shareholders and customers, and internal measures of critical business processes, innovation, and learning and growth. The measures are balanced between the outcome measures – the results of past efforts – and the measures that drive future performance. And the scorecard is balanced between objective, easily quantified outcome measures and subjective, somewhat judgmental, performance drivers of the outcome measures. Kaplan and Norton (1996:10)

Kaplan and Norton assert that this tool provides a “strategic framework for action” using objectives and measures organized into four perspectives: financial, customer, internal business processes, and organizational learning and growth.

A half century earlier Drucker (1955) was already arguing the need for a company to strike the right balance between multiple objectives:

There are few things that distinguish competent from incompetent management quite as sharply as the performance in balancing objectives. Yet there is no formula for doing the job. Each business requires its own balance – and it may require a different balance at different times. Drucker (1955:111)

He compared the manager of a firm to the pilot of an aeroplane; both need a variety of metrics to operate and guide their enterprises:

Objectives in the key areas are the “instrument panel” necessary to pilot the business enterprise. Without them management flies by the “seat of its pants” – without landmarks to steer by, without maps and without having flown the route before. ... However, an instrument panel is no better than the pilot’s ability to read and interpret it. Drucker (1955:112)

By the 1970s French companies had commonly implemented such *Tableaux de Bord* – “dashboards” of key success factors. French managers used their respective dashboards to guide firm behaviour and assess overall performance.

Four years before Kaplan and Norton’s seminal article on the Balanced Scorecard in the *Harvard Business Review*, two prestigious awards were launched: the Baldrige National Quality Award (Figure 3B) and the European Foundation Quality Management (EFQM) Excellence award (Figure 3C). Their frameworks ‘soon became widely implemented by thousands of organizations as an internal diagnostic tool’ Kaplan and Lamotte (2001:3). The frameworks consist of a series of interlinked criteria (seemingly comparable to the Balanced Scorecard) against

Figure 3A: Four perspectives of the Balanced Scorecard

Source: Kaplan and Norton (1996:9)

“The Balanced Scorecard provides a framework to translate strategy
into operational terms”

Figure removed

Figure 3B: Baldrige criteria for performance excellence framework
Source: Kaplan and Lamotte (2001:4)

Figure removed

Figure 3C: The European Foundation Quality Management Model for Business Excellence
Source: Kaplan and Lamotte (2001:5)

Figure removed

Table 3B: Comparison of EFQM, Baldrige and Balanced Scorecard Criteria

Criteria of the two leading quality models
(Source: Kaplan and Lamotte 2001)

Criteria of the Balanced Scorecard (Source: Norton 2000)

Table(s) removed

which organizations rate and compare themselves. The percent of total metrics allocated to the various criteria by both awards are listed in Table 3B (Kaplan and Lamotte (2001)); they are contrasted with Balanced Scorecard norms (Norton (2000)).

Kaplan and Norton argue that whilst *Tableaux de Bord*, key success factors, and the EFQM and Baldrige frameworks may be symbiotic with the Balanced Scorecard, they are inferior for three reasons. Firstly, they incorporate measures which may not necessarily be causally related to improved firm performance. Secondly, they generally do not establish strategic priorities for process enhancements. Thirdly, unlike the Balanced Scorecard, they usually do not 'integrate budgeting, resource allocation, target-setting, reporting, and feedback on performance into ongoing management processes' Kaplan and Lamotte (2001:6). Each of these arguments will be examined.

Addressing their first objection to other frameworks Kaplan and Norton assert that properly defined Balanced Scorecards are based on the concept of strategic causality:

Our experience is that the best Balanced Scorecards are more than collections of critical indicators or key success factors. The multiple measures on a properly constructed Balanced Scorecard should consist of a linked series of objectives and measures that are both consistent and mutually reinforcing. The metaphor should be a flight simulator, not a dashboard of instrument dials. Like a flight simulator, the scorecard should incorporate the complex set of cause-and-effect relationships among the critical variables, including leads, lags and feedback loops that describe the trajectory, the flight plan, of the strategy. The linkages should incorporate both cause-and-effect relationships, and mixtures of outcome measures and performance drivers. Kaplan and Norton (1996:29-30)

Causal relevance is demonstrated by linking competitive advantage and performance breakthroughs to the particular business strategy. Cox (1998) notes:

(S)trategic causality cannot be generalised from observation alone. (It) must be part of a rational logic, pursued within the mind of the individual theorist, which seeks to explain why certain activities are more casually important than others. Cox (1998:55)

Unfortunately, Kaplan and Norton cannot validate the causal relevance of the four categories of measures that they incorporate into the Balanced Scorecard.

The four perspectives should be considered a template, not a straight jacket. No mathematical theorem exists that four perspectives are both necessary and sufficient. We have yet to see companies using fewer than these four perspectives, but, depending upon industry circumstances and a business unit's strategy, one or more additional perspectives may be needed. ... But we don't think that all stakeholders are automatically entitled to a position on a business unit's scorecard. The scorecard outcomes and performance drivers

should measure those factors that create competitive advantage and breakthroughs for an organization. Kaplan and Norton (1996:34-35)

The Balanced Scorecard merely offers a “generic value chain model” that ‘provides a template than companies can customize in preparing their internal business process(es)’ to create value for customers (Kaplan and Norton (1996:96)). Recent empirical evidence, however, questions whether Balanced Scorecard use results in greater emphasis being placed on strategic drivers (i.e. strategic causality) versus traditional performance outcomes³¹. This author also notes the absence of supply-related metrics in the generic template (although Kaplan and Norton do concede that ‘if strong supplier relationships are part of the strategy leading to breakthrough customer and/or financial performance, the outcome and performance driver measures for supplier relationships should be incorporated within the organization’s internal-business-process perspective’) Kaplan and Norton (1996:35).

Addressing their second objection to other frameworks Kaplan notes that strategic-priority setting is an integral part of implementing a Balanced Scorecard; they describe the process as a “framework for action” where such prioritization occurs. See Figure 3D. The process Kaplan and Norton describe according to which organisations prioritise initiatives follows a hierarchy of steps very similar to the one described by Granger (1964) nearly 40 years earlier. See Figure 3E. Ultimately a ‘strategy map defines the *architecture* of the strategy’ Kaplan and Norton (2001:10); a personalized map is produced for each business unit, functional group and member of the firm that describes their respective role in building and maintaining the “architecture”. See Figure 3F.

For purposes of this thesis it is important to note that Kaplan and Norton adopt the three “value disciplines” advanced by Treacy and Wiersema (1993)³²:

Our analysis suggests that common patterns of logic and activity apply across organizations. This observation is consistent with the findings of Treacy and Wiersema

³¹ “Balanced Scorecards are clearly a fad that companies feel compelled to adopt in order to stay current.” That’s how the Hackett Group characterized the Balanced Scorecard in a recent research report (2000 Hackett Benchmarking Book of Numbers). The foundation for this? Half of the 60 companies surveyed by Hackett claimed to be using Balanced Scorecards, yet for the majority of these users, almost three-quarters of their performance measures were still financial. That’s compared to 82% for those who do not use the Balanced Scorecard. That’s not much of a difference between those who do or do not report use of a “balanced” scorecard” Norton (2000:3). Kaplan and Norton recommend that financial measures occupy only 22% of the total. A study by a different consultancy of ‘successfully implemented Balanced Scorecards in 22 companies’ reflected these recommendations. Consult Table 3B.

³² See also discussion of value disciplines and strategic alignment in Section 2.4

who conclude that successful organizations compete on one of three clearly defined value propositions: operational excellence ... customer intimacy ... or product leadership. The central idea is that successful companies will excel at one of these three dimensions of value while maintaining threshold standards on the others. Norton (1999:2)

They note that:

The firm's value proposition and financial outcomes are the outcomes that organizations want to achieve. Strategy must not only specify the desired outcomes; it must also describe how they will be achieved. ... Porter claims that 'activities are the basic units of competitive advantage.' The art of developing a successful and sustainable strategy is ensuring alignment between an organization's internal activities and its customer value proposition. Kaplan and Norton (2001:90)

Kaplan and Norton provide a second set of templates to help firms imbed their chosen value discipline into their respective strategy maps. See Figure 3G.

Empirical evidence suggests that managers are very receptive to the ideas underlying the Balanced Scorecard. Since its introduction in 1992 Western firms have rapidly adopted it³³. Its use as tool for improving strategic alignment across diverse stakeholder groups within the supply chain has also been increasingly noted in the literature.

3.4 Justification for a stakeholder approach to management

'The idea that corporations have stakeholders has now become commonplace in the management literature, both academic and professional' Donaldson and Preston (1995:65). Donaldson and Preston claim that during the period 1984-1995 'about a dozen books and more than 100 articles with primary emphasis on the stakeholder concept have appeared' Donaldson and Preston (1995:65). Unfortunately they note that 'diverse theoretical approaches are often combined without acknowledgement' Donaldson and Preston (1995:65).

³³ In a 2001 interview with CFO Magazine David Norton cites a survey by the management consultancy Bain & Company that indicates 'in North America, about 50 percent of Fortune 1,000 companies are using the scorecard, and in Europe somewhere between 40 and 45 percent. Research done by one of the [Australian] universities indicates that about 35 percent of companies claim to be using a balanced scorecard' Calabro (2001:1).

Figure 3D: Steps to implement a Balanced Scorecard

Source: Kaplan and Norton (1996:11)

“The Balanced Scorecard as a strategic framework for action”

Figure removed

Figure 3E: Translating a mission into desired outcomes
Source: Kaplan and Norton (2001:73)

Figure removed

Figure 3F: A Strategy Map
Source: Kaplan and Norton (1999:5)

Figure removed

Figure 3G: Building the Strategy Map – The Customer Value Proposition
Source: Kaplan and Norton (2001:88)

Figure removed

To promote more rigorous thinking and analysis of the stakeholder concept, they distinguish between three different justifications for the theory: descriptive accuracy, instrumental power, and normative validity.

Descriptive justifications attempt to show that the concepts embedded in the theory correspond to observed reality. Instrumental justifications point to evidence of the connection between stakeholder management and corporate performance. Normative justifications point appeal to underlying concepts such as group 'rights,' 'social contract,' or utilitarianism. Donaldson and Preston (1995:74)

These three aspects of stakeholder theory are nested within each other and can be viewed as three concentric circles. The outer shell corresponds to its descriptive aspect; the middle circle to its instrumental use; and the core to its normative use. For the purposes of this section this author adopts the above definitions.

Recent *instrumental* evidence suggests that UK and US firms managed according to stakeholder principles may be more profitable than comparable firms traditionally managed:

Evidence Supporting Stakeholder Theory Extracted from Clarke (1998)		
Author(s)	Type ³⁴	Conclusion
Kotter and Heskett (1992)	Instrumental – interviews	"Studied 200 companies over 20 years and clearly correlated superior long-term profitability with corporate cultures that express the company's purpose in terms of all stakeholder relationships" Clarke (1998:189)
Garvin (1991)	Instrumental – empirical	"Winners of the Baldrige award, which ... like other national and international quality models, including the European Foundation of Quality Management (EFQM) covers performance in all key relationships, show better than average financial returns" Clarke (1998:189)
Waterman (1994)	Instrumental – Empirical	"A paradox is that companies driven by financial indices to satisfy shareholders often appear capable of doing so for limited periods of time. 'Companies that set profits as their number one goal are actually less profitable in the long-run than people-centred companies' Waterman (1994)" in Clarke (1998:190)

The Economist provides *descriptive* evidence of growing support of the "stakeholder movement" by UK businessmen: 'A report on "Tomorrow's Company", published by the Royal Society for the Arts in 1995 and sponsored by firms such as Cadbury Schweppes, Guinness, Midland Electricity, Unipart and NatWest, asserted that "those companies which will sustain competitive success in the future are those which focus less exclusively on shareholders and financial measures of performance—and instead include all their stakeholder relationships ... in the way they think and talk about their purpose and performance" RSA

³⁴ As defined by Donaldson and Preston (1995).

(1995).³⁵ Clarke (1998), however, notes that the Hampel Committee on Corporate Governance *explicitly* stated that UK directors were not *legally* bound to recognise stakeholder interests (i.e., *descriptive* justification against) and *implied* that directors should therefore *not* recognise stakeholder interests (*normative* justification against):

A company must develop relationships relevant to its success. These will depend on the nature of the company's business; but they will include those with employees, customers, suppliers, credit providers, local communities and governments. It is management's responsibility to develop policies which address these matters; in doing so they must have regard to the overriding objective of preserving and enhancing the shareholders' investment over time... This recognises that the directors' relationship with the shareholders is different in kind from their relationship with other stakeholder interests. The shareholders elect the directors. As the CBI put it in their evidence to us, the directors are responsible for relations with stakeholders; but they are accountable to the shareholders. This is not simply a technical point. From a practical point of view, to redefine the directors' responsibilities in terms of the stakeholders would mean identifying the various stakeholder groups; and deciding the nature and extent of the directors' responsibility to each. The result would be that the directors were not effectively accountable to anyone since there would be no clear yardstick for judging their performance. This is a recipe neither for good governance *nor for corporate success* [emphasis added] Clarke (1998:187-188)

Similar ambiguity over stakeholder interests is found in the US. Clarke (1998:185) provides *descriptive* evidence supporting stakeholder theory in that '38 state legislatures in the United States have attempted to protect companies in their local economies from hostile takeover by passing stakeholder laws that permitted or required directors to consider the impact of their activities on constituencies other than shareholders including employees, customers, suppliers and the community'. He also notes, however, that over half of US Standard and Poor's 500 corporations are listed in the state of Delaware which does not have such a "corporate constituency" statute.

Donaldson and Preston (1995) hold that the fundamental basis of stakeholder theory is ultimately *normative*. Ironically they justify stakeholder theory mainly on the idea of (limited) property rights and support their position using Coase (1960). Although considered a member of the Chicago School of Economics – and therefore a neoclassicist – Coase noted that rights of ownership are not unlimited:

³⁵ *The Economist*, 10 February 1996, p. 23.

We may speak of a person owning land ... but what the land-owner in fact possesses is the right to carry out a circumscribed list of actions. The rights of a land-owner are not unlimited ... [This] would be true under any system of law. A system in which the rights of individuals were unlimited would be one in which there were no rights to acquire.
Coase (1960:44)

Donaldson and Preston contend that this restricted view of property rights extends to shareholders. Whilst they concede that the concept of limited property rights does not automatically provide justification for assigning 'managerial responsibilities towards specific groups' (i.e., suppliers, customers or other stakeholders in the value chain), they assert that the concept of limited property rights 'does *not* support the popular claim that the responsibility of managers is to act solely as agents for the shareowners' Donaldson and Preston (1995:84). They argue that supporters of the shareholder theory of the firm – including Milton Friedman and his 'famous attack on corporate social responsibility'³⁶ Donaldson and Preston (1995:84) – also argue their position normatively. They suggest that *any* theory of the firm must ultimately be justified normatively³⁷.

3.5 The Balanced Scorecard and supply management

Freeman and Liedtka (1997) assert that the value chain should be reinterpreted in stakeholder terms. It is interesting to note that they consider stakeholder theory the underlying *architecture* for the value chain (the same term Kaplan and Norton used to describe their concept of strategy maps).

One way to describe the contribution of stakeholder theory to the operation of the more cooperative value chain is to think of it as providing the 'systems architecture' for sustainable collaboration.... It does this by altering the scope, timeline, and prominence of the value capture process. Within the stakeholder mindset, the value creation process dominates — value capture, as an issue, has less saliency because it is seen within the context of an on-going, trust-based relationship rather than as occurring within a sequence of discrete transactions. ... Good architecture is fundamental to the stakeholder value chain. It follows that each party which benefits from the value chain must invest in the maintenance of the drivers of that chain. Freeman and Liedtka (1997:291)

Several authors have asserted that the Balanced Scorecard should play a central role in establishing such an architecture and in aligning a firm's purchasing and supply management activities with the overall supply chain strategy.

³⁶ 'Few trends could so thoroughly undermine the foundations of our free society as the acceptance by corporate officials of a social responsibility other than to make as much money for their stockholders as possible' Friedman (1962:113). See also Friedman (1970).

³⁷ See Section 7.1 for a detailed review of epistemological issues.

Author(s)	Balanced Scorecard Application to Supply Management
Butler (1996)	The Balanced Scorecard properly measures purchasing's true 'value-add' by including traditional (e.g., efficiency-based) as well as non-traditional (e.g., effectiveness-based) performance metrics. A fifth perspective (e.g., supply-side relationships) should be added to the four proposed by Kaplan and Norton.
Cousins and Hampson (2000)	A methodology for purchasing performance management is suggested with a 'Balanced Purchasing Scorecard' at its centre. This scorecard allows the purchasing organisation to develop effectiveness vs. efficiency goals that are aligned with the firm's strategic objectives and that balance the different expectations of the firm's stakeholders.
Brewer and Speh (2000)	Firms are better positioned to succeed in implementing their supply chain initiatives when they link their performance measurement system to supply chain activities. The Balanced Scorecard should be adapted to emphasise the success of the entire supply chain by incorporating metrics that 'span functional and firm boundaries; these metrics would 'show how all members of the chain are performing and would foster incentives to work with other members of the chain'.
Brewer and Speh (2001)	Supply chain partners need to define clearly their strategic objectives and gain a mutual understanding of where their objectives converge, and perhaps diverge, before pursuing any particular chain-spanning performance measures.

However, four large hurdles will be encountered implementing such a systems architecture (Brewer and Speh (2001))³⁸. Firstly, supply chain outcomes often depend on inter-organisational effort thereby requiring chain-spanning metrics. In addition, supply-chain objectives sometimes necessitate an individual sub-optimising his or her individual performance for the overall benefit of the supply chain. For this to occur an individual's performance evaluation and incentives must be tied to this larger view. Yet many companies still employ traditional performance measures. Secondly, supply chain players will undoubtedly have different goals and objectives. Consensus-building therefore needs to occur to resolve conflicting goals and objectives across firms (or to decide where no agreement is possible). Yet many companies maintain arms' length relationships with their supply chain partners. Thirdly, 'proposed measures must be carefully evaluated to determine if there's a direct link to the value delivered to the final customer. If the link cannot be established it may be necessary to discard the measure or to find another measure that does have the required linkage'³⁹ Brewer and Speh (2001:56). Yet administrative functions including purchasing have frequently been unable to demonstrate such a contribution. Fourthly, it is difficult to decide where to begin in developing and implementing a supply chain-spanning performance measurement system. A methodology is needed to help focus on the whole rather than the individual parts whilst simultaneously prioritizing the most important areas/factors. Systems thinking approaches to management may help firms overcome many of these hurdles.

³⁸ See also Section 4.5 for a discussion of systems thinking and supply management.

³⁹ Value perceptions from the customer's perspective will be discussed in detail in Chapter Six.

3.6 Conclusion

This chapter continued this author's detailed discussion of the five value first principles guiding this thesis's research. Specifically this author discussed the second of the five principles: *balance multiple objectives*. Accordingly he examined several key concepts in the literature. This author discussed how firms operate according to *multiple objective functions* rather than a *single objective function*; examined how *stakeholders satisfice objective functions* given the presence of *bounded rationality* and a *hierarchy of needs*; explored the *Balanced Scorecard*, an increasingly popular management tool used by firms to improve strategic alignment; and discussed the Balanced Scorecard as an emerging tool in supply management.

The proceeding chapter will continue the discussion of the five value first principles. In order to *balance multiple objectives across the firm* (the second principle), the literature asserts that one *adopt a systems view* (the third principle). To support this assertion, this author will introduce and describe key *systems thinking* concepts; discuss the *Balanced Scorecard* in the context of *systems thinking*; explore the role of *systems thinking* in *strategic management*; review six *theories of the firm* using systems thinking precepts; discuss the relevance of *systems thinking* to *supply management*; and examine *value management* in the context of *systems thinking*.

CHAPTER FOUR:
DISCUSSION OF VALUE FIRST PRINCIPLES
‘ADOPT A SYSTEMS VIEW’

4.0 Purpose

In the preceding chapter this author continued his detailed discussion of the five value first principles guiding this thesis's research. He discussed the second of the five first principles: balance multiple objectives. Accordingly he examined several key concepts underlying the area of performance management/goal attainment within the firm and introduced the Balanced Scorecard, an increasingly popular management tool used by firms to improve strategic alignment across stakeholder groups.

This chapter continues the discussion of the five value first principles. In order to balance multiple objectives (the second of the five principles), the literature asserts that one *adopt a systems view* (the third of the five principles). As support for this assertion, this author will review the systems thinking literature in order to:

1. Introduce and describe key *systems thinking* concepts;
2. Discuss the *Balanced Scorecard* in the context of systems thinking;
3. Explore the role of systems thinking in *strategic management*;
4. Review six *theories of the firm* (e.g., *neoclassical, transaction cost, agency-based, behavioural, resource-based, and competence-based*) using systems thinking precepts;
5. Discuss the relevance of systems thinking to *supply management*.
6. Examine *value management* in the context of systems thinking.

4.1 Systems thinking

Systems thinking is the name given to the field of study investigating the behaviour of systems, i.e. 'sets of elements connected together which form a whole, this showing properties which are properties of the whole, rather than properties of its component parts' Checkland (1993:3). The essence of systems thinking is encapsulated by Ansoff's reflection on synergy, i.e. *the whole* (i.e., the system) *is greater than the sum of its parts*. Kauffman (1980:2) contrasts a system with a "heap" which he defines as occurring whenever 'something is made up of a number of parts [where] it does not matter how those parts are arranged'.

Systems thinking challenges the Cartesian assumptions underlying scientific thought and much of Western education:

René Descartes taught Western civilization that the thing to do with complexity was to break it up into component parts and tackle them separately. ... Systems thinking, however, starts from noticing the unquestioned Cartesian assumption: namely, that a component part is the same when separated out as it is when it is part of a whole. Checkland (1993:12)

Descartes assumes that dividing up a problem and examining each of its constituent parts will not distort the phenomenon under investigation. '[He] assumes that the components of the whole are the same when studied singly as when they are playing their part in the whole, or that the principles governing the assembling of the components into the whole are themselves straightforward' Checkland (1993:59).

Richmond and Peterson (1996:1.3) assert that the Cartesian way-of-thinking often prevents companies from competing effectively in today's "highly interdependent reality". They claim that Cartesian thought engenders "local spatial" and "local temporal" orientations to management; they identify these orientations as the root cause of much functionally-based, short-term thinking:

Because we've operated for so long with 'local' perspectives, we have developed certain 'habits of thought' which make it difficult to learn (both as individuals and as organizations) in today's increasingly interdependent (i.e., non-local) business reality. These habits are: (1) thinking statically rather than dynamically, (2) assigning responsibility for performance to factors 'out there' rather than 'in here', and (3) thinking correlationally rather than operationally. In order to increase our learning capacities, and hence our ability to compete, we must break these habits. Richmond and Peterson (1996:1.4)

Richmond and Peterson (1996:1.5) assert that the first "habit of thought", *thinking statically rather than dynamically*, is a result of a "mental model" pervasive in Western management. They label this mental model "Laundry List Thinking" or "Factors Thinking".

The first habit of thought associated with Laundry List Thinking deals with straight-line causal relationships, one factor affecting another. If you were to diagram the structure of cause and effect relationships, it would look like a series of arrows pointing from each cause (or factor) to the thing being caused (i.e., the effect). ... In the laundry list structure, arrows run one-way, from cause to effect: This affects that, *finis*. This view of causality is consistent with local spatial and temporal perspective. Richmond and Peterson (1996:1.5)

Richmond and Peterson contend that causality in fact runs both ways resulting in a web of circular, interdependent causal relationships (rather than a series of linear, independent logical relationships). As a result of this ‘nest of circular relationships ... each “thing” is at once both cause and effect!’ Richmond and Peterson (1996:1.8). Causality is thus dynamically rather than statically determined with dominant relationships between elements within the web shifting over time.

The second habit of thought, *assigning responsibility for performance to factors “out there” rather than “in here”*, concerns itself with the locus of responsibility for an organisation’s successful performance.

If people subscribe to the notion that ‘outside forces’ are driving the organization, they tend to look “outward”—most likely seeking to predict and prepare for some inevitable onslaught. By contrast, if people embrace the view that the organization *itself* is the cause of the performance it is exhibiting, they are more likely to look “inward.” The operative questions for these folks are: ‘How are we making ourselves vulnerable to a set of outside forces over which we have little or no control? How might we restructure the system to reduce our vulnerability in the face of these forces?’ Richmond and Peterson (1996:1.9)

Recall the differences in the various schools of strategic thought¹. One of the differences, *whether strategic management should be principally focused on that “which is” or “that which could be”*, reflects the causal viewpoint (“inward” versus “outward” orientation) adopted by the firm. The three earliest schools of strategy – the design, planning and positioning schools – adopted an “outward” view of causality that encouraged managers to focus on success factors inherent in the firm’s environment and/or its industry. These three schools stand apart from other schools of strategy that adopt a more “inward” causal viewpoint².

The third “habit of thought” associated with Laundry List Thinking is *Correlational Thinking*; Richmond and Peterson contrast Correlational Thinking with the *Operational Thinking* inherent in systems thinking:

The Systems Thinking paradigm is operational in its orientation. People use it when they need to get at what really makes a system/process/strategy tick. This does not mean answering the Laundry List question: What factors will *influence* performance? Rather, it means answering the question: What are the relationships that *generate* performance? Richmond and Peterson (1996:1.11)

¹ See Section 2.3. Tables 2A and 2B summarize the differences between the schools of strategy.

² In Section 4.4 this author will contrast these externally oriented theories of the firm with more internally (as defined by Richmond and Peterson above) oriented theories of the firm.

What characterizes this Operational (i.e. Systems) Thinking? Checkland (1993:16) asserts that the system paradigm is based on two pairs of ideas: *communication* and *control*, and *emergence* and *hierarchy*. Checkland (1993:16) defines *communication* as *the transfer of information* which reduces uncertainty; he notes that information includes both a “hard” aspect (*data*) in addition to a “soft” aspect (*meaning*). Checkland (1993:16) defines *control* as ‘the process by means of which a whole entity retains its identity and/or performance under changing circumstances’. *Control* thus corresponds to “single-loop learning” (Argyris (1982)) or “first-order change” (Bate (1994))³. Norton (2000) adopts Checkland (1993:16)’s definitions, associating communication with strategic management and control with tactics management⁴.

Emergence and *hierarchy* describe the fact that:

There exists a hierarchy of levels of organization, each more complex than the one below, a level being characterized by emergent properties which do not exist at the lower level. Indeed, more than the fact that they ‘do not exist’ at the lower level, emergent properties are meaningless in the language appropriate to the lower level. ... Emergent properties associated with a set of elements at one level in a hierarchy are associated with what we may look upon as constraints upon the degree of freedom of the elements. The emergent properties resulting from application of the constraints will entail a descriptive language at a meta-level to that describing the elements themselves. Checkland (1993:81)

The constraints upon the degrees of freedom of one level by another, and vice versa, establish circular feedback loops between different parts of the organisation. As a result of this web of interdependent relationships, “goal conflict” frequently occurs:

Goal conflict occurs when activities that are designed to bring one condition into line with its goal, simultaneously ‘bump into’ some other condition (or conditions), knocking it out of line with its goal. ...It’s difficult to achieve all our many goals simultaneously. We’re forced to make choices and to endure the consequences. The real challenge is to make the best trade-offs, the ones that leave us feeling the best about ourselves and simultaneously do the maximum good for ‘the web’ to which we all belong. Richmond and Peterson (1996:2.10-2.11)

It is around the issue of goals that the field of systems thinking bifurcates into “hard systems thinking” and “soft systems thinking”. Key differences between the two branches are identified in Table 4A.

³ This author discusses control in considerable detail in Section 4.2.

⁴ See Section 4.2 and Figure 4D.

TABLE 4A: Differences between the two schools of systems thinking
Extracted from Checkland and Holwell (1998:48)

	The 'Hard' Tradition (Simon)	The 'Soft' Tradition (Vickers)
Concept of organization	Social entities which set up and seek to achieve goals	Social entities which seek to manage relationships
Concept of information system	An aid to decision making in pursuit of goals	A part of interpreting the world, sense making with respect to it, in relation to managing relationships
Underlying systems thinking	'Hard' systems thinking: the world assumed to be systemic	'Soft' systems thinking: the process of inquiry into the world assumed to be capable of being organized as a system
Process of research and inquiry	Predicated upon hypothesis testing; quantitative if possible	Predicated on gaining insight and understanding; qualitative
Social theory	Functionalism (stemming from Durkheim)	Interpretive (stemming from Weber)
Philosophy	Positivism	Phenomenology

Simon (1957) co-developed *the behavioural theory of the firm*⁵. The theory's adherents posit that a firm's managers collectively satisfice rather than optimize / maximize their respective objectives. Proponents of the behavioral theory of the firm assert that (a) there exist several potential goals – consciously articulated or unconsciously adopted – by stakeholder groups in the firm, (b) those goals may conflict, (c) stakeholders will try to influence each others' behaviors, (d) which causes each stakeholder group to satisfice (rather than to optimize) its individual goals, (e) so that in aggregate the firm can be viewed as operating based upon a negotiated set of objectives. This negotiated set of objectives may be either explicitly stated or implicitly inferred.

Simon, however, does not explain exactly how these goals are formed. 'In Simon's model, goal definition does not get much attention' Checkland and Holwell (1998:47).

Individuals and organizations try to achieve a succession of goals; that is their fundamental concern. In pursuit of [these] goals, managers (and, for that matter, organizations as a whole, which are not treated as being fundamentally problematical) *take decisions* and so *solve problems*. ... Simon and March, in developing the behavioural theory of the firm, see [such] 'problems' as 'indicated by gaps between performance and goals' (March and Simon 1958, page 73) and 'problem solving' is then a matter of closing the gap by finding a suitable means to achieve the goals, which is taken as already known" Checkland and Holwell (1998:44-45).

The key point is that the manager's task 'is to solve problems and take decisions in pursuit of declared goals' Checkland and Scholes (1999:A48).

⁵ See Section 3.2.

Vickers (1965) rejected this goal-seeking model of human behaviour. Instead he advances the concept of the “appreciative system” where managers set standards and norms rather than goals. ‘Vicker’s claim was that he had constructed an epistemology that can provide convincing accounts of the process by which human beings and human groups deliberate and act’ Checkland and Scholes (1999:A53). Managers act primarily by managing relationships based upon historical standards and norms.

Figure 4A presents a model of Vicker’s appreciative system.

The model tries to capture Vicker’s most important point and greatest insight, namely, that there is normally no ultimate source for the standards by means of which what is noticed is deemed good or bad, important or unimportant, relevant or irrelevant, and so on. The source of the standards is the previous history of the system itself. In addition, the present operation of the system may modify its present and future operation through its effect on the standards. ... An appreciative system is a process whose products – cultural manifestations – condition the process itself. Checkland and Scholes (1999:A52)

Checkland and Holwell (1998) label Vicker’s approach *interpretivist* and place his work in phenomenology with philosophical roots in Husserl and sociological roots in Weber⁶. Soft systems thinking (e.g., Vickers) is concerned primarily with the process of collective sense-making or meaning attribution by individuals in organizations; it usually concerns problems in which the goals and purposes of the system are uncertain. The soft systems perspective is that the world is complex, confusing, and indeterminate, but the process of sense-making (i.e. inquiry) is systemic and can be thought of as a *learning system*. In a “soft” learning-system, participants concern themselves with the inquiry process; their participation impacts, influences and changes the process they are using.

In contrast, Checkland and Holwell (1998) place Simon’s approach in positivism with philosophical roots in Descartes and sociological roots in Durkheim. Hard systems thinking (e.g., Simon) is concerned primarily with problem solving; it usually concerns problems with predetermined goals and objectives. The hard systems perspective is that the world itself is systemic (i.e., composed of multiple, determinate systems) and that it can be rationally and objectively engineered to achieve particular ends. In a “hard” problem-solving system, the facts are

⁶ The phenomenologist and positivist traditions of research will be discussed in detail in Section 7.1.

Figure 4A: The dynamics of an appreciative system
Source: Checkland and Casar (1986) in Checkland and Scholes (1999:A52)

Figure removed

extrinsically derived; participants are concerned with the solution but the solution has no impact on external reality.

The inquiry process in soft systems methodology (SSM) consists of ‘a learning cycle in which models of human activity systems [are] used to structure a debate about change’ Checkland and Scholes (1999:A54). The process is reminiscent of the aims of *catch-ball* or the *CRIP* (Catch, Reflect, Improve, Pass) process within *hoshin kanri*⁷ described in Section 2.5. It is also reminiscent of the Balanced Scorecard described in Section 3.3. Recall that Kaplan and Norton (2001:16) highlight the role of the Balanced Scorecard in facilitating change noting that ‘A Successful Balanced Scorecard program starts with the recognition that it is not a ‘metrics’ project; it is a change project’.

4.2 Systems thinking, the Balanced Scorecard and “double-loop” learning

To emphasize the change inherent in using Balanced Scorecard approach to management, Kaplan and Norton (2000) advance a “double loop” strategic management process model:

The Balanced Scorecard offers a solution: a “double loop” process that integrates tactics management (management control) with strategy management (strategic learning). The new management system introduces two feedback loops that allow organizations to monitor and test strategy, to update their scorecard measures as needed, and in turn, to adapt their strategies to changing environments. Kaplan and Norton (2000:1)

Figure 4B illustrates this double loop process; the upper (or strategic learning) loop is portrayed by a dashed line to indicate this feedback loop is lacking in most companies⁸. Kaplan and Norton (2000) note that their double-loop model has its antecedents in the double loop learning developed by Argyris (1982). Companies “learn” by testing the hypotheses and assumptions underlying their strategies:

The Balanced Scorecard highlights the hypotheses underlying strategy through the strategy map’s cause-and-effect linkages across the scorecard’s four perspectives. But hypotheses are just assumptions about how the world works. They need to be continually tested for their validity and either rejected when evidence accumulates that expected linkages are not occurring – or else re-tooled when unexpected linkages arise. Kaplan and Norton (2000:2)

⁷ Recall from Section 2.5: The visual metaphor is one of children in a circle passing a ball amongst themselves. In a similar way, the CRIP process is designed (a) to guarantee an iterative process; (b) to encourage positive and negative input from individuals up and down the firm’s hierarchy; and (c) to achieve consensus.

⁸ In support of this assertion Kaplan and Norton (2000:1) cite a 1996 survey conducted by the consultancy Renaissance Solutions that found ‘85% of management teams spend less than one hour a month on strategy issues’.

Figure 4B: “Double loop” management
Source: Kaplan and Norton (2000:1)

Figure removed

Bate (1994) distinguishes between two types of change in the “strategy in use”⁹:
mutations of the strategy and *transformations* of the strategy.

Cultural change¹⁰ may therefore be simply defined as the movement from one strategy (S) to another over time: $S_1 \rightarrow S_2$ *Mutations* of the strategy in use [occur when] S_1 changes at irregular intervals but retains its basic form (i.e., S_{1a} , S_{1b} , S_{1c} , etc.). This is a change IN strategy, in which the ‘shape’ of the strategy changes but not its underlying properties (invariance); in other words there is continuity and an unbroken trajectory through time: $S_{1a} \rightarrow S_{1b} \rightarrow S_{1c} \rightarrow S_{1d}$ etc. *Transformations* of the strategy in use [occur

⁹ Bate (1994:23) cautions that ‘We have to be very precise here in the way we define strategy [S], being particularly careful to avoid the narrow, formalistic and concrete meaning that some writers have attached to it. S as I am referring to it represents the ‘strategy in use’ (this term doubling up very nicely as a definition of culture). The “strategy in use” is the actual rather than the desired, the real rather than the espoused, the current rather than the ideal, the informal rather than the formal, strategy’.

¹⁰ Bate (1994:22-23) equates cultural change with strategic change. ‘Strategy formulation of any kind is a cultural activity (the development of strategy is cultural development). Whether they see it this way or not, strategists are, in fact, engaging in a process of cultural change, and should therefore acquire greater familiarity with the culture paradigm ... Cultural change is strategic change. Avoid treating culture and strategy as two separate entities, requiring two separate processes, and learn to see them as one’.

when] the [change] process is interrupted by a frame-switch from one type of strategy to another (S_1 to S_2 below); the evolutionary chain is broken; there is discontinuity and variance of form. This may be described as a change OF strategy: $S_{1a} \rightarrow S_{1b} \rightarrow S_{1c} \parallel S_{2a}$ etc. Bate (1994:23)

The people who pursue *mutations* of the strategy, Bates labels ‘culture conservationists’:

They wish to preserve and protect the cultural environment (The Order) that their predecessors or present-day ‘elders’ have created. This has tended to make them imitators rather than innovators, copiers rather than creators, refiners rather than reformers, purifiers rather than perverters, balancers rather than boat rockers; people who see change as an adapting, correcting, conforming, process – a process that is dedicated to making the culture last. Developers, yes, but *changers*, no. [emphasis added] Bate (1994:35)

Cultural conservationists pursue *mutations* of the strategy in use; they aim for “first order change”:

Apart from being conservationists, cultural order strategists are also evolutionists, pursuing a course of development that will produce not so much a change as a ‘growth of order’ (from a lower level to a higher level of evolution). Their strategies may therefore be described as custodial, dedicated to keeping the form or species of culture alive, and the ‘line’ intact. Their guiding rule is that change is acceptable if it produces a mutation of the existing form, but not if it involves changing the form itself. In other words, *first order quantitative growth* (‘more of the same’) is permitted but *second order qualitative growth* (‘something different’) is not. The surface shape can be altered, but the underlying form or matrix from which it is constituted must remain invariant....” [emphasis added] Bate (1994:38)

Bate (1994:35) contends that from the viewpoint of the cultural conservationist, ‘change is a disturbance to be corrected’ i.e., equilibrium is to be maintained by limiting change to “first order” change. ‘Like a thermostat, the strategy cuts in automatically whenever anything moves outside the accepted range, and acts in a self-regulating way, that is homeostatically, to counteract the change’ Bate (1994:35).

Bate’s “first order strategic change” maps very neatly to hard systems thinking. Change occurs whenever current performance deviates from the target.

There is a desired state, S_1 , and a present state, S_0 , and alternative ways of getting from S_0 to S_1 . ‘Problem-solving’, according to this view, consists of defining S_1 and S_0 and selecting the best means of reducing the difference between them. Thus, in systems engineering, $(S_1 - S_0)$ defines ‘the need’, or the objective to be attained, and systems analysis provides an ordered way of selecting the best among the alternative systems which could fulfil that need. The belief that real-world problems can be formulated in this way is the distinguishing characteristic of all ‘hard’ systems thinking ... Checkland (1993:138)

Checkland and Holwell (1998:47) place these disciplines (i.e., systems engineering and systems analysis) squarely in the “hard systems thinking” camp (see Table 4A). In contrast, Bate’s “second order strategic change” maps very neatly to “soft systems thinking” which Checkland and Holwell (1998:47) characterize as ‘predicated on gaining insight and understanding’.

The preceding authors were reviewed in order to provide a foundation for examining Kaplan and Norton (2000)’s “double loop” strategic management process model. Figure 4C depicts the Balanced Scorecard as the mechanism that integrates the lower loop (management control) and the upper loop (strategic learning). Kaplan and Norton assert that the Balanced Scorecard becomes part of the organisation’s management control system which they envisage as the firm’s performance thermostat:

The thermostat provides a good metaphor for such control, since it detects differences between the actual and targeted temperatures and adjusts the heating or air-conditioning unit to bring the outcome back to the desired state. Monthly reports that compared actual performance to the budget and calculated variances were what managers used to detect when initiatives were not being deployed as planned, to explain why results fell short of targets, and to plan corrective actions. The new monthly meeting, focused on the Balanced Scorecard, *expands this thermostatic process* by offering an opportunity to report and discuss all strategically relevant measures, along with performance-improving initiatives. It intensifies the focus on the strategy and identifies the management and organizational actions required to get performance back on track. Kaplan and Norton (2000:2)

Does the Balanced Scorecard actually change the strategic management process (as Kaplan and Norton claim above)? Or does the Balanced Scorecard merely expand the list of performance metrics used by a firm? Can the Balanced Scorecard effect Bate’s concept of “second order change” (which corresponds to Kaplan and Norton’s “strategic learning” label), or is it limited to Bate’s “first order” change (which corresponds to Kaplan and Norton’s “management control” label)? See Figure 4D.

There is no question that Kaplan and Norton intend to place the Balanced Scorecard squarely in systems thinking; they emphasise the *cybernetics* principles upon which it is based:

Figure 4C: “Double loop” management
Source: Kaplan and Norton (2000:3); Kaplan and Norton (2001:275)

Figure removed

Figure 4D: Measurement for control or communication?
Source: Norton (2000)

Figure removed

Balanced Scorecards, and the strategy maps on which they are based, reflect the philosophy of the systems approach. The view of strategy as a linked set of actions and outcomes which take place over time describe the system. The double-loop management process on which the Strategy-Focused organization is based is derived from the principles of cybernetics (feedback and control), which are fundamental to systems. And, yes, it is rocket science, because these same principles were used to design the systems that put a man on the moon. The systems approach is the perfect discipline to describe and evaluate business strategy. It is particularly appropriate for the complex structures which are emerging in the new economy. Norton (2000:15)

Checkland and Scholes (1999), however, consider cybernetics to be within the “hard systems” tradition, since cybernetics assumes previously established goals:

In the period after the Second World War, strenuous efforts were made to apply the lessons from wartime operations research to industrial companies and government agencies. In doing this, a powerful strand of systems thinking was developed – it would now be thought of as ‘hard’ systems thinking – concerned broadly with engineering a system to achieve its objectives. Systems were here assumed to exist in the world; it was assumed that they could be defined as goal seeking; and ideas of system control were generalized in *cybernetics*. ... These ideas ... conceptualized the manager’s task as being to solve problems and take decisions in pursuit of declared goals. Checkland and Scholes (1999:A48)

The theoretical boundaries of cybernetics are not the issue; the key question is whether the Balanced Scorecard effects “first order” or “second order” change in organisations. In Section 4.1 this author outlined the differences between the “hard systems” and “soft systems” branches of systems thinking. Recall that hard systems thinking takes goals as already established; however, little attention is given to how those goals are established. In contrast, soft systems thinking usually concerns problems in which the goals and purposes of the system are uncertain; however, the process of sense-making (i.e. inquiry) is systemic and can be thought of as a *learning system*. For Figure 4C to be correct the Balanced Scorecard must bridge the hard systems thinking of management control (lower loop) and the soft systems thinking of strategic learning (upper loop). If it cannot bridge these two streams, the Balanced Scorecard suffers from the same limitations inherent in the Total Cost of Ownership approach¹¹.

Kaplan and Norton (2001:307) position the ‘strategy review meeting’ as the venue for ‘testing and adapting the strategy’. They identify three ‘processes used to test and update the strategy’: (1) analytic methods, hypothesis testing and dynamic simulation; (2) examination of external discontinuities; and (3) identification / support of emergent strategies. The Balanced Scorecard’s ability to bridge the hard systems thinking of management control (lower loop) and the soft systems thinking of strategic learning (upper loop) might therefore be evaluated based on Kaplan and Norton (2001:307)’s discussion of these three processes.

Unfortunately they devote only ten pages (out of 381 pages) to this discussion. Within these pages (pp. 307-316) they do not provide a conceptual framework or methodology explaining how firms actually clarify goals and objectives (the central concern of soft systems thinking and *learning systems*). Although Olve, Roy et al. (1999:248-251) describe how firms are using the *ithink* and *Powerism* software packages to simulate causal linkages across the four quadrants of the Balanced Scorecard, they do not provide a framework for the “soft” *learning process*.

¹¹ Recall Section 1.5 where this author asserted that value is incompletely conceptualized (and therefore incompletely managed) whenever it is defined solely as a noun (e.g., the ‘worth’ of an object), as a verb (e.g., the processes and activities employed by a firm to place a value on things) or as an adjective (e.g., the different actors’ perceptions of what is in fact valuable). In Section 3.1 this author notes that Ellram (1993) attempts to devise a more complete notion of value by expanding its definition as a noun – from purchase price to Total Cost of Ownership. Unfortunately, redefining the expression ‘value’ when used as a noun does not redefine its meaning when used as a verb or as an adjective.

Perhaps this lack of discussion is not surprising, since most management activity is single-loop anyway. Argyris (1982:69) claims that:

The overwhelming number of organizational changes reported in organizational development, political science, management information systems, and organizational sociology represents single-loop changes.... The emphasis on organizational single-loop learning may be at least partially due to the fact, as noted above¹², that most organizational activities are single loop; that is, decomposing complex tasks into simpler tasks which produce the intended result when correctly carried out. Argyris (1982:69)

However, Argyris observes that the most important changes stem from “double-loop learning”:

Several unintended consequences result when social scientists study primarily single-loop change. Although single-loop actions are the most numerous, they are not necessarily the most powerful. Double-loop actions – the master programs – control the long-range effectiveness, and hence, the ultimate destiny of the system. Argyris (1982:69)

This author asserts that controlling ‘long range effectiveness, and hence, the ultimate destiny of the system’ Argyris (1982:69) is one of the aims of Bate (1994)’s *strategic*¹³ *transformation*¹⁴. In order to assess the Balanced Scorecard’s – or any tool’s or process’s – contribution to strategic transformation, one must first understand strategic management in the context of effecting *systemic*¹⁵ change (i.e., strategic transformation above).

4.3 Systems thinking and strategic management

To help achieve *systemic* change select authors have recently advanced “integrated” approaches to strategic management which incorporate systems thinking fundamentals. Gomez (1999:14) asserts that the ‘first movement towards an integrated view of a company and the developing of corresponding managerial concepts happened at the beginning of the 1970’s in Switzerland’. He states that

¹² ‘Single- and double-loop learning are required by all organizations. One might say that one of the features of organizations as a social technology is to decompose double-loop issues into single-loop issues because they are then more easily programmable and manageable. Single-loop learning is appropriate for the routine, repetitive issue – it helps get the everyday job done. Double-loop learning is more relevant for the complex, non-programmable issues—it assures that there will be another day in the future of the organization’ Argyris (1982:69).

¹³ Recall this thesis’s definition of the strategic management process from Section 2.3: The process of ordering a firm’s *internal and external activities, resources and actors* [i.e. Argyris’s “the system”] in accordance with the firm’s *competitive strategy* [i.e., Argyris’s “long-range effectiveness”, “ultimate destiny”].

¹⁴ Recall that Bate (1994:23) distinguishes between two types of change in the “strategy in use”: *mutations* of the strategy and *transformations* of the strategy. ‘Transformations of the strategy in use [occur when] the [change] process is interrupted by a frame-switch from one type of strategy to another (S₁ to S₂ below); the evolutionary chain is broken; there is discontinuity and variance of form. This may be described as a change OF strategy’.

¹⁵ Checkland and Scholes (1999:18) note that ‘A condition is “systemic” if it pervades the body as a whole, and it is noticeable that the recently published Oxford Dictionary of Current English gives only a medically oriented definition, namely “of the bodily system as a whole”. But that is unnecessarily limiting, and a better definition would be: “of or concerning a system as a whole”’.

this movement resulted in the St. Gallen Management Concept (Bleicher (1999)). The St. Gallen Management Approach is represented by a framework ‘composed of separate modules [i.e., corporate development, organisation, management systems, etc.] but at the same time provid[ing] an overview of all managerial interrelations’ Gomez (1999:14). See Figure 4E.

The St. Gallen Management Approach distinguishes between three levels of management: normative, strategic and operational. These levels mirror Granger (1964)’s value hierarchy (see Figure 2G) which Kaplan and Norton (2001) incorporate into their Balanced Scorecard approach (see Figure 3E). Gomez (1999) asserts that a firm’s management team can address all aspects of Bleicher (1999)’s framework if they use a “systemic strategic methodology” based on eight strategic principles (see Figure 4F). Interestingly Gomez (1999)’s strategic principles support the value first principles advanced by this author and supported by the literature review. See Table 4B.

Table 4B: Commonalities between value first principles and Integrated Value Management strategic principles	
Value “first principles” Source: literature review	Integrated Value Management strategic principles Source: Gomez (1999)
(1) Align purchasing and corporate strategies (Chapter Two)	[Partial] (8) Strategic realisation has to be ensured by means of strategic projects and early warning systems. Sustainability has to be ensured by harmonizing strategy, organization and corporate culture
(2) Balance multiple objectives (Chapter Three)	(2) Visions and objectives have to take into account the interests of all the stakeholders in a company
(3) Adopt a systems view (Chapter Four)	(3) Working through one-dimensional checklists must be replaced by the establishment of a systemic network of business and environmental interrelations
(4) Ensure value flows across the system (Chapter Five)	(5) Strategic reorientation of a company means surpassing all barriers: melting strategic and financial thinking into one; questioning all existing structures; considering co-operations with other companies
(5) Use the ultimate customers’ perceptions to understand value (Chapter Six)	(7) Strategies have to be assessed from a qualitative as well as a quantitative point of view. It is as important to consider the interests of the various stakeholders as it is to use the company’s own dynamics. Plus (3) above.

Gomez (1999) stresses the need for networking thinking (i.e. soft systems thinking) throughout his strategic methodology:

Figure 4E: The St. Gallen Management Concept
Source: Bleicher (1997) in Gomez (1999:24)

Figure removed

Figure 4F: The Systemic Strategic Methodology of Integrated Value Management
Source: Gomez (1999:72)

Figure removed

Figure 4G: Strategic Management Approaches
Source: Gharajedaghi (1999:17)

Figure removed

The method of network thinking is both a thought process and also a tool to show in a clear and easily implementable way a systemic overview of the complex interrelations in a company. It requires that an executive:

- Looks at a problem or business area from the viewpoint of each different stakeholder and outlined their aims and interests;
- Assesses the key factors for business success and their determinants;
- Assesses the network of these determinants in the form of cycles showing either strengthening or stabilizing effects;
- Assesses which determinants are controllable in this network and so determines the starting point for strategies;
- Examines to what extent these strategies make use of the company's inherent dynamics;
- Monitors the introduction of these strategies by means of an early warning system. Gomez (1999:14)

Gharajedaghi (1999) similarly stresses the need for “systems thinking” in order to adopt the “shift of paradigm” required in order to compete more effectively in today’s “game changing” environment.

A shift of paradigm can happen purposefully, by an active process of learning and unlearning. More commonly, however, it is a reaction to frustration produced by a march of events that nullify conventional wisdom. Faced with a series of contradictions that can no longer be ignored or denied, and/or an increasing number of dilemmas for which prevailing mental models can no longer provide convincing explanations, most people accept that the prevailing paradigm has ceased to be valid and that it has exhausted its potential capacity. Gharajedaghi (1999:8)

Gharajedaghi (1999:8) posits that this shift of paradigm can occur in one of two categories: ‘in the nature of reality or in the method of inquiry’. He asserts that six different strategic management approaches map to these two categories as one shifts one’s thinking about organisations – from a mechanistic to a biological to a sociocultural view of the firm – and as one shifts one’s thinking about strategic causality – from analytical analysis of independent variables to holistic analysis of interdependent variables. See Figure 4G.

A dual shift (i.e., simultaneous change in both categories) is a real and formidable challenge, because it requires one to view an organisation as simultaneously ‘becoming more and more interdependent [whilst] the parts increasingly display choice and behave independently’ Gharajedaghi (1999:8). The ability to develop such a perspective does not come readily to individuals – ‘It tests the outer limits of human capacity to comprehend, communicate and confront the problematic’ Gharajedaghi (1999:8) – nor to organisations¹⁶:

¹⁶ *Caveat lector.* He also asserts that ‘we are now facing the challenge of a dual shift’ Gharajedaghi (1999:8).

Failure to appreciate the significance of this dual change results in excessive structural conflict, anxiety, a feeling of impotency, and resistance to change. Unfortunately, prevailing organizational structures, despite all the rhetoric to the contrary, are designed to prevent change. Dominant cultures, by default, keep reproducing the same nonsolutions all over again. This is why the experience with corporate transformation is so fraught with frustration. The implicitness of the organizing assumption, residing at the core of the organization's collective memory, is overpowering. Accepted on faith, these assumptions are transformed into unquestioned practices that may obstruct the future. Unless the content and implications of these implicit, cultural codes are made explicit and dismantled, the nature of the beast will outlive the temporary effects of interventions, no matter how well intended. Gharajedaghi (1999:9-10)

Such a dual change approximates Bate's "second-order strategic change" and Argyris's "double loop learning" (both described in Section 4.2).

The strategic literature, however, lacks consensus on a central tenet of these authors and other soft systems thinkers, namely whether strategy's role is to question the underlying assumptions that Gharajedaghi (1999) claims 'keep reproducing the same nonsolutions all over again'. Recall that this author demonstrated how Bate (1994) describes "first order thinking" using the metaphor of the thermostat (See Section 4.1). Argyris (1982) supported Bate's interpretation of the metaphor:

Single-loop learning asks a one-dimensional question to elicit a one-dimensional answer. My favorite example is a thermostat, which measures ambient temperature against a standard setting and turns the heat source on or off accordingly. The whole transaction is binary. Double-loop learning takes an additional step or, more often than not, several additional steps. It turns the question back on the questioners. It asks what the media call follow-ups. In the case of the thermostat, for instance, double-loop learning would wonder whether the current setting was actually the most effective temperature at which to keep the room and, if so, whether the present heat source was the most effective means of achieving it. A double-loop process might also ask questions not only about objective facts but also about the reasons and motives behind those facts. Argyris (1982:230)

Argyris advances a model of learning (see Figure 4H) which isolates the difference between the single-loop and double-loop learning processes.

Learning is defined as occurring under two conditions. First, learning occurs when an organization achieves what is intended; that is, there is a match between its design for action and the actuality or outcome. Second, learning occurs when a mismatch between intentions and outcomes is identified and it is corrected; that is, a mismatch is turned into a match. ... Single-loop learning occurs when matches are created, or when matches are corrected by changing actions. Double-loop learning occurs when mismatches are corrected by first examining and altering the governing variables and then the actions. Argyris (1982:68)

Most individuals use an analytical approach rather than a system approach to inquiry (Checkland (1993), Checkland and Holwell (1998), Checkland and Scholes (1999)). When individuals use single-loop learning models in situations

of growing uncertainty (i.e., situations where the underlying variables become increasingly chaotic), Argyris asserts that error (i.e. the “mismatches” described above) is introduced:

We [Donald Schon and Chris Argyris] attempted to identify the cognitive features of information that would tend to facilitate and inhibit the production of error. We hypothesized the following continua:

Conditions that enhance the probability of:

[Error]	[Learning]
Information ¹⁷ is:	
Vague	Concrete
Unclear	Clear
Inconsistent	Consistent
Incongruent	Congruent
Scattered	Available

Donald Schon and I then suggested that when individuals programmed with a Model I theory-in-use strive to solve difficult and threatening problems for which available information nears the left end of these continua, they will create conditions of undiscussability, self-fulfilling prophecies, self-sealing processes, and escalating error. These conditions act to reinforce vagueness, lack of clarity, inconsistency, and incongruity, which in turn reinforce the use of Model I (i.e., people strive harder to be in unilateral control, to minimize losing and maximize winning, etc.). At the same time, we suggested these conditions tend to create win-lose groups and intergroup dynamics with competitiveness dominating over cooperation, mistrust overcoming trust, and unquestioned obedience replacing informed dissent. ... Under these conditions, it is difficult to see how structural and policy changes will lead to double-loop learning. Argyris (1982:84-85)

In other words, ‘[our] ability to learn shuts down precisely at the moment [we] need it the most’ Argyris (1982:69).

According to Argyris (2000) this (in)ability snowballs from the individual- to the dyad- to the group- to the firm-level. This author previously discussed how the firm collectively operates based on a hierarchy of values, goals, objectives, tactics etc.¹⁸. A firm must collectively learn in order to define the components of that hierarchy. Yet this requires an active “second order” / double-loop/ soft systems thinking process which Argyris (2000:xiv) shows is frequently absent from strategic management discussions. See Figure 4I.

¹⁷ This author notes that the adjectives in the left column equally describe situations where a company does not hold a common definition of value. Errors, or “mismatches” using Argyris’s term, are therefore highly probable resulting in *value misalignment* within supply chains (which will be discussed in Section 5.3) and value gaps (which will be discussed in Sections 6.4 and 6.5). This assertion is supported by this thesis’s research results (which will be reviewed in Chapters Eight and Nine).

¹⁸ Recall Section 2.4 where this author asserted ‘The aim of the strategic management process is to configure properly the firm’s actors, activities and resources so that they are *aligned* with the firm’s “value objectives” or selected value disciplines. Thus values (and their proper definition) are the foundation of corporate strategy’.

Figure 4H: Single-loop and double-loop learning
Source: Argyris (1999:68)

Figure removed

Figure 4l: Organisational learning systems that inhibit error detection and correction

Source: Argyris (2000:xiv)

Figure removed

Figure 4J:
The Balanced Scorecard's Role in Strategic Implementation
Source: Kaplan and Norton (1996)

Figure removed

Recall that this author highlighted incomplete definitions of value in Section 1.5; he noted that value is incompletely conceptualized (and therefore incompletely managed) whenever it is defined solely as a noun (e.g., the “worth” of an object), as a verb (e.g. the processes and activities employed by a firm to place a value on things) or as an adjective (e.g. the different actors’ perceptions of what is in fact valuable). Frequently strategic authors adopt an incomplete definition of value by failing to define the strategic learning process, i.e. how a firm questions the increasingly “sacrosanct” assumptions and values that lie at the higher levels of the hierarchy discussed in section 2.1¹⁹. Strategic authors attempt to devise a more complete definition of value by expanding its definition as a noun²⁰ or they ignore entirely its usage as a verb²¹. (For example, see Figure 4J where Kaplan and Norton (2001) appear to imply that using the Balanced Scorecard Tool will automatically overcome a major barrier to strategic implementation – clarifying and translating a firm’s vision – even though this “barrier” is essentially value as a verb!). Adamson (1980:26) notes this problem:

Two differing views of the definition of strategy are worth mentioning. The first is expressed by Andrews. He defines the word strategy as *including major objectives, goals, policies and plans*. He also states that ‘the choice of goals and the formulation of policy cannot in any case be separate decisions.’ [Andrews (1971) *The Concept of Corporate Strategy*, pp. 28-29] On the other hand, Argenti and the others define strategy as being the plans and policies used to meet objectives and point out that strategies are decided *only after the objectives have been set*. [Argenti (1974) *Systematic Corporate Planning*, pp. 32-33]

For the purpose of this thesis, *value as a verb is the process used by two or more individuals (a) to understand the underlying variables (e.g., vision and mission) governing their actions; (b) to identify matches-mismatches between the individuals’ expectations of those variables that enable/prevent joint action; and (c) to adjust expectations so that a match is found (thereby enabling action)*. The definition is based upon soft systems thinking and double-loop learning as previously discussed.

¹⁹ Lamming (1993:109) refers to *duetero learning* to describe ‘what happens in an organization in which learning becomes the norm for everyone—so that double loop learning occurs all the time. The notion is akin to the concept of *kaizen*, in that each learning process challenges the status quo’. Price (1996:91) attributes development of the term *duetero learning* to Bateson (1972).

²⁰ Recall Section 3.1 where this author asserts that Ellram (1993) attempts to devise a more complete notion of value by expanding its definition as a noun – from purchase price to Total Cost of Ownership.

²¹ Recall Section 4.2 where this author notes that Kaplan and Norton (2001) do not provide a conceptual framework or methodology explaining how firms actually clarify goals and objectives.

Figure 4K: Integrated Model of Strategic Management
Source: Digman (1990) in Moore (1992:201)

Figure removed

Figure 4L: Strategic Management Model
Source: Pearce and Robinson (1988) in Moore (1992:234)

Figure removed

Figure 4M: The Five tasks of strategic management
Source: Thompson and Strickland (1990) in Moore (1992:239)

Figure removed

Figure 4N: Mapping the space of strategy formation
Source: Mintzberg (1998:369)

Figure removed

Figure 40: A Comparison of various authors' concepts of strategy and the strategy formulation process

Source: Hofer and Schendel (1977:18-19)

Figure removed

Applying this definition of value to the strategic frameworks previously reviewed is insightful (see Table 4C). The majority of previous frameworks (Category B below) cite

Category	Source	Description	Figure
A	Robson (1997)	Strategic management process	2E
A	Spekman (1981)	Model of strategic procurement planning	2B
A – New	Digman (1990)	Integrated model of strategic management	4K
A – New	Pearce and Robinson (1988)	Strategic management model	4L
A – New	Thompson and Strickland (1990)	Five tasks of strategic management	4M
B	Browning, Zabriskie et al. (1983)	Strategic management model	2F
B	Granger (1964)	Hierarchy of objectives in terms of level of need or activity	2G
B	Kaplan and Norton (2001)	Translating a mission into desired outcomes	3E
B	Lysons (1996)	Strategic planning process	2D
B	Ramsey (1976)	Recommended framework for intra-level objective and strategy interaction	2H
B	Robson (1997) ²²	Strategic management process	2E
C	Pearson and Gritzmacher (1990)	Strategic management process	2C
C	Watts, Kim et al. (1992)	Purchasing: The missing link to strategy	2I

missions and/or visions yet assume them to be already established. They do not portray a “double-loop learning” process for revising these variables; rather the logical flow is explicitly unidirectional away from the underlying mission/values²³. On both sides of this majority lie two very different groupings. The frameworks in one grouping (Category A) explicitly portray what could be considered second-order feedback loops. The frameworks in the other grouping (Category C) do not mention missions, visions and/or governing variables at all; in addition, they do not provide any feedback loops for second-order change.

Several additional approaches to strategy not previously reviewed, however, do incorporate learning feedback loops. They are highlighted in the Table 4C²⁴. See also Figures 4K, 4L and 4M. These models appear to be patterned after Argyris

²² Robson (1997) is listed twice since Figure 2E contains two different models.

²³ Such unidirectional flows are characteristic of “laundry list thinking” Richmond and Peterson (1996) defined in Section 4.1

²⁴ These models represent a sample of strategic frameworks. No conclusions should be drawn about the distribution of *all* strategic frameworks. The intent is to demonstrate that *many* models do not explicitly address the double-loop learning which forms the basis of this thesis's definition of value as a verb.

(1982)'s earlier model of organisational learning (see Figure 4H), although Hofer and Schendel (1978) predate the model.

When plotted on Gharajedaghi (1999:8)'s map of strategic management approaches (see Figure 4G), Category A are positioned towards the lower right hand corner. Mintzberg, Ahlstrand et al. (1998) similarly map ten different schools of strategic formation²⁵ along two axes: one's view of internal reality (i.e., organisational perspective) and one's view of external inquiry (independence versus interdependence). See Figure 4N. When plotted on Mintzberg, Ahlstrand et al. (1998:369)'s map of strategy formation²⁶, Category A models are positioned towards the upper right hand corner.

The ten schools of strategy conceptualise what is important or valuable very differently²⁷. If one adopted any school's definition of strategic management, one would also adopt its implicit definition of value. Hofer and Schendel (1977) also analyse a dozen strategic authors and conclude that many do not include goal formulation (i.e. "double-loop" learning) in the strategic formulation process. See Figure 4O. Based on the preceding discussion and evidence, this author concludes that selecting any particular strategic school (consciously or unconsciously) will therefore influence the definition of value, since the school's theorists may not incorporate "double loop" learning (i.e. questioning of underlying assumptions) in their models. A biased definition of value will result posing considerable risks to later interpretations of this thesis's empirical research.

Recall the considerable overlap between Mintzberg's ten schools of strategy and the *theory of the firm* literature. Since the theory of the firm literature is based on the putative 'rational', 'objective' views of economics, the reader might logically assume that a received definition of value might be found there. Unfortunately,

²⁵ They are the design, planning, positioning, entrepreneurial, cognitive, learning, power, cultural, environmental, and configuration schools of strategy. The premises of the ten schools are summarized in Table 2B. See this author's discussion of strategic management in Section 2.3.

²⁶ The purpose of this chapter is not to classify precisely and exhaustively all strategic approaches. Rather, the aim is to show a selective incorporation of systems thinking principles -- particularly of soft systems thinking or double loop learning (value as a verb) -- by the strategic management literature. Mintzberg, Ahlstrand et al. (1998)'s and Gharajedaghi (1999)'s strategic maps are nearly identical except for the direction of their y axes; they provide two independent and mutually-supporting assessments of the literature vis-à-vis systems thinking.

²⁷ Recall that this author asserted in section 2.3 that 'these differences would likely result in dissimilar strategic management processes within a firm depending upon the school the management team follows. A firm's management would value and therefore reward / incent differing activities and behaviours (see Table 2A) based upon the premises of the ten schools (outlined in Table 2B)'.

the *theory of the firm* and underlying economics literature²⁸ do not provide such a consensus viewpoint.

4.4 Systems thinking and the theory of the firm

In attempting to describe the theory of the firm, Archibald (1971) observes:

It should be possible to explain quite clearly what one's subject matter is. Failure to do so is normally occasion for criticism; and confessed inability to do so should be occasion for embarrassment. Yet the fact is that the subject matter and scope of the 'theory of the firm' are neither obvious nor easily explained. Archibald (1971:9)

This author concurs; he was unable to identify a single comprehensive survey of the *theory of the firm* literature comparable to Mintzberg, Ahlstrand et al. (1998)'s overview of the strategy literature. Archibald (1971) and Casson (1996) reprint key articles on the theory of the firm. However, neither provides a taxonomy (with a standardized list of schools and definitions) nor a synthesis of the key premises of each school.

In order to assist the reader yet remain focussed on the objective of this chapter, this author provides below a descriptive summary of six *theories of the firm*: the *neoclassical*, *transaction cost*, *agency-based*, *behavioural*, *resource-based*, and *competence-based schools*. These six were selected from Douma and Schreuder (1998)'s list of economic approaches to organisations.

Neoclassical theory of the firm

According to the *neoclassical theory of the firm*, the economic enterprise has one objective – the maximisation of its single-period profits. The firm is viewed as an holistic entity; all its members work solely towards attaining that single objective. Decision-making is vested in the owner-entrepreneur who acts for the entire firm.

The firm is assumed to have perfect information with which it can assess all relevant decisions concerning what and how much to produce. The firm's *production function* describes the multiple ways that production inputs can be combined to create outputs. The owner-entrepreneur selects whichever combination yields the greatest economic return in a single-period. The

²⁸ Economic definitions of value will be discussed in detail in Section 5.1.

unambiguous decision rule of the owner-entrepreneur is to set production at the point at which marginal revenues equal marginal costs.

Transaction cost theory of the firm

Transaction cost economics (TCE) posits that the internal co-ordination of economic transactions within the firm is simply an alternative to market exchange. Coase (1937) is credited with establishing the school's foundational thinking by questioning why organisations even exist if market prices – as posited by the *neoclassical theory of the firm* – provide the sufficient co-ordinating mechanism to drive the firm's production resources and decisions. He concludes that the price mechanism must not provide an economically efficient mechanism for co-ordinating transactions in all situations.

According to Coase (1937), marketing and transaction costs are often saved if exchange transactions are brought under the control of a central co-ordinator. The co-ordinator is granted the authority to reassign tasks and to offer altered payments as contingencies arise. The firm represents such a framework – economic exchange is removed from market negotiation and internally organised. The firm is therefore a more efficient (lower cost) way to organise transactions.

Williamson (1975) extends Coase (1937)'s reasoning, and attempts to build a predictive theory for determining the most appropriate co-ordinating mechanism²⁹. Williamson (1975) holds that the firm emerges when the price mechanism fails due to the following pairing of environmental and human factors:

Environmental Factors		Human Factors
Uncertainty	↔	Bounded rationality
Small-numbers exchange	↔	Opportunism

Agency theory of the firm

Alchian and Demsetz (1972) focus on the costs of monitoring and the problem of opportunism. Echoing Smith (1776), they observe that it is efficient and economical for individuals to combine their efforts in joint production.

²⁹ This author discusses the role of transaction costs in shaping PSM contracting relationships in Section 5.4. See Figure 5L.

Individuals reap on average larger economic returns through joint effort – on account of the division of labour, greater task specialisation and resultant increases in productivity – than through isolated effort.

Group effort, however, introduces *moral hazard*. Individuals are tempted to shirk in order to receive the advantages of the group's efforts without contributing proportionately. Shirking is particularly acute whenever it is difficult or impossible to ascertain reliably an individual's particular contributions to group output. Monitoring systems are required whenever a collective activity requires individual effort. Jensen and Meckling (1976) focus on the particular agency issues that arise between stockholders and the firm's management. They note that stockholders face a cost-benefit trade-off when deciding how much to spend on implementing monitoring devices to discourage managerial opportunism.

Behavioural theory of the firm

The twin concepts of bounded rationality and goal incongruence underpin the *behavioural theory of the firm*. Cyert and March (1992) mirror Williamson (1975)'s earlier definition of bounded rationality; however, the result of bounded rationality that they describe, of organisations setting targets 'rather than finding the best imaginable solution', differs from the cost minimisation ideal proposed by transaction cost economics. According to the behaviouralists, the firm's goal is to achieve an optimal solution for co-ordinating economic exchange across *all* objective functions, not necessarily the optimal solution to a particular objective function.

Conflicting interests between a firm's actors do not disappear under the employment contract as Coase (1937) asserts, whereby a firm's proprietor effortlessly reassigns employees at will. The *behaviouralist theory of the firm* refutes the neoclassical notion of frictionless interactions between economic agents. In contrast to *transaction cost economics* which posits a single objective function for the firm – the minimisation of transaction costs – and which assumes organisational unity in its pursuit, the *behavioural theory of the firm* posits the existence of coalitions each pursuing its own interests.

According to the *neoclassical theory of the firm*, managers should focus on maximising profits and improving the financial position of the firm's shareholders. Under the *behavioural theory of the firm*, managers must contend with the interests of all coalitions, of all *stakeholders* in the firm, if the organisation is to function effectively and survive. Unless the inducements offered to members of each coalition are greater in their view than the contributions they believe they are asked to make, the coalitions will not participate.

Managing the firm requires, therefore, the identification and definition of the firm's goals. Conflicting interests between stakeholders – shareholders, employees, managers, suppliers – will create tension that is dissipated only through intra-and inter-organisational bargaining. Firms estimate the outcomes of various decisions and select those which meets the aspiration levels of all coalition members. According to *the behavioural theory of the firm*, firms *satisfice* rather than *maximise*.

Resource-based theory of the firm

In her foundational work on the growth of the firm, Penrose (1959) focusses on the role of resources in defining the boundaries of the firm. She notes that:

For any given scale of operations a firm must possess resources from which it can obtain the productive services appropriate to the amounts and types of product it intends to produce. Some of these services will be obtained from resources already under the control of the firm ... others will be obtained from resources the firm acquires in the market as occasion demands. Although the 'inputs' in which the firm is interested are productive services, it is resources that, with few exceptions, must be acquired in order to obtain services. ... Having acquired resources for actual and contemplated operations, a firm has an incentive to use as profitably as possible the services obtainable from each unit of each type of resource acquired. Penrose (1959:67)

She observes that firms incur not only the production costs of co-ordinating economic exchange but also the opportunity costs of not deploying resources optimally. By focussing on the most efficient use of the firm's resources, she provides insight into *where* a firm might expand.

Thirty years after Penrose, Dierickx and Cool (1989) note that:

When an asset is nontradeable, the option to realize its value in a factor market is not available. In order to tap its rent earning potential, the owner of such an asset has to deploy it in product markets where, owing to the factor's nontradeability, it may remain

in fixed supply. Conversely, a firm which does not own a nontradeable asset which it requires for the implementation of its product market strategy is constrained to 'building' this asset. Dierickx and Cool (1989:164)

The decision to organise certain economic exchanges internally through vertical integration can thus be motivated by a desire to obtain and preserve nontradeable assets. Maximum value can be achieved by the firm obtaining critical nontradeable assets³⁰ and deploying them most profitably.

Competence-based theory of the firm

Penrose (1959)'s reference to the "basic potentialities" of the firm provides one of the first academic reference to the capabilities of a firm. Richardson (1972) later observes that a firm's production decisions are not guided by explicit blueprints, but rather are a function influenced by its human abilities. The notion of a firm's core competence, however, is attributed to Andrews (1971):

Members of organizations develop judgments about what the company can do particularly well—its core of competence. If consensus can be reached about this capability, no matter how subjectively arrived at, its application to an identified opportunity can be estimated. Andrews (1971:55)

Andrews (1971:57) observes that the distinctive competence of the firm 'is more than what it can do; it is what it can do particularly well' and that this "core of competence" is what differentiates the organisation from others. As a result, the ability of the firm 'to find or create a competence that is truly distinctive may hold the real key to a company's success or even to its future development'³¹.

Prahalad and Hamel (1990) popularised the notion of core competences. They advance a definition of what constitutes the skills that are "core" to an organisation.

At least three tests can be applied to identify core competencies in a company. First, a core competence provides potential access to a wide variety of markets. ...Second, a core competence should make a significant contribution to the perceived customer benefits of the end product. ...Finally, a core competence should be difficult for competitors to imitate. And it will be difficult if it is a complex harmonization of individual technologies and production skills. Prahalad and Hamel (1990:23-24)

³⁰ See Section 5.4 where this author further discusses PSM's role in preserving the firm's critical assets. See Figure 5M.

³¹ PSM's role in preserving core competences is discussed in Section 5.4. See Figures 5L and 5N.

Teece, Pisano et al. (1997) provide a nearly identical definition of core competences. Cox (1998) also echoes the definition first developed by Prahalad and Hamel (1990).

Summary

Douma and Schreuder (1998) claim that the preceding six theories of the firm differ along three key dimensions. Firstly, the theories focus on different subject matter. Douma and Schreuder (1998) distinguish *process* theories from *content* theories.

We borrow a distinction from the strategy literature in order to classify [these] approaches. Process theories deal with the processes by which strategies come into being. Content theories deal with the content of those strategies: the firm's strategic posture and positioning in the market. Similarly, we will distinguish here between process and content approaches to organizations. The former deal with organizational processes but hardly inform us about the likely outcomes of those processes. The latter focus on substantive outcomes without being very informative about the processes leading to these outcomes. Douma and Schreuder (1998:213)

Secondly, the theories differ in the modes of analyses used and the timeframes inherent in each theory. Douma and Schreuder (1998) distinguish *static* approaches from *dynamic* approaches.

[Static approaches] employ a mode of analysis which is known as comparative-static in economics. A comparative-static analysis compares one (static) situation with another. ... What the analysis reveals, therefore, is a ranking of alternative situations, given the (efficiency) criterion employed. It will not tell you how the present situation may evolve or how to get from here to there if you are now in an inferior situation. Douma and Schreuder (1998:216)

Douma and Schreuder (1998) plot five theories of the firm against these two axes. See Figure 4P. Their map recalls Mintzberg, Ahlstrand et al. (1998)'s map (Figure 4N) even though the exact co-ordinates of the plots differ slightly. Both maps indicate that theories using the term value predominantly as verb are distributed towards the upper right corner; those theories using the term value predominantly as a noun being distributed towards the lower left corner.

Douma and Schreuder (1998) also assert that the theories differ in terms of their level of analysis (i.e., the third key difference). They distinguish between seven levels of analysis:

Person dyad: a pair of individuals in an exchange relationship;
Group: a (relatively small) number of individuals bound together by a community of purpose, interest, or function;

Intergroup: the relations between organizational groups with different purposes, interests, or functions;

Organization: the nexus of contracts, the coalition of participant groups and/or the administrative structure that forms a unity and is usually legally recognized as such;

Organizational dyad: a pair of organizations in an exchange relationship;

Population of organizations: All organizations of a particular type or form;

System: the entire set of organizational populations, environmental characteristics, and their interrelationships, relevant to the analysis of aggregate phenomena. Douma and Schreuder (1998:216-217)

Douma and Schreuder (1998) plot five of the theories of the firm using these seven levels as the vertical axis. See Figure 4Q. Three key insights are that (a) no theory extends across the seven levels; (b) most theories are skewed either locally (i.e., towards the dyad level) or globally (towards the system level); and (c) only one theory (potentially) reaches the system level. Figure 4Q suggests that any attempt to conduct analysis across the entire continuum requires multiple theories which in turn potentially introduces major research problems³². In addition, Figure 4Q suggests that a competence-based theory of the firm is automatically assumed (and its implicit definition of value adopted) when conducting analysis at the highest (systems) level. With supply academics increasingly recommending consideration of supply issues at the network (systems) level, a conceptually sound value framework is therefore lacking when needed most.

4.5 Systems thinking and supply management

The idea that purchasing and supply management should be viewed using a systems perspective has long been noted in the literature. For example, King (1967) notes that:

Not only in purchasing, but in other areas of business as well, there emerged in the 1940's the so called 'systems approach' to management decision-making. Such a view ... forces us to recognize that *any action in one part of the system has some effect on every other part*. [emphasis added] King (1967:65)

Fearon (1973:41) observes 'the primary objective [of purchasing] is to solve materials problems from a *total organization* viewpoint rather than from the viewpoint of any individual function; to balance possibly conflicting objectives of

³² Recall that in Section 2.3 this author notes that he is 'unaware of any systematic way to blend multiple schools' implicit definitions of value. ... By selecting a "commonly accepted" school ... alternative, useful and commonly used definitions of value would be ignored. The result would be that this thesis would advance a particular school's theory of value-based supply strategies which may (or may not) reflect the case companies studies (i.e. what management teams actually do)'.

Figure 4P: Family differences within the various economic approaches to organisation

Source: Douma and Schreuder (1998:215)

Figure removed

Figure 4Q: Levels of analysis within the various economic approaches to organisation
Source: Douma and Schreuder (1998:218)

Figure removed

the various materials functions, *to the net benefit of the organization as a whole*³³ [emphasis added]. Rajagopal and Bernard (1993) also posit that:

Organizations exercise the best control over the cost of purchased goods and services only when there is synergistic activity between departments. This results in the integrated output becoming greater than the sum of the individual efforts. On the other hand, uncoordinated action by one department may optimize the success of that department but cause undesirable results in another, to the detriment of the *organization as a whole*. With a functionally integrated approach, all members of the organization recognize their role in *the procurement system*. [emphasis added] Rajagopal and Bernard (1993:18)

Whilst agreeing on the need for the purchasing function to adopt a systems perspective, most authors understand the 'system' concept differently. Lanning and Michaels (1988) and Lanning (1998) credit the consultancy McKinsey & Company with finalizing the first business system framework in the late 1970s. "The Business System" depicts the firm as a series of broad functions (e.g., research and development, manufacturing, marketing, distribution, etc.) whose combined purpose is threefold: to create, make and sell a product. By analyzing how each of these functions is performed relative to its competitors, a firm could gain useful insights into its relative competitive performance. Porter (1985:36), however, notes that the business system concept 'does not distinguish among types of activities or show how they are related'; as a result, 'the concept is not linked specifically to competitive advantage or to competitive scope'.

Porter (1985) modified the Business System to create his concept of the value chain³⁴. The value chain describes a set of interconnected value activities occurring within a firm (see Figure 4S). Porter (1985) describes these value activities as:

The physically and technologically distinct activities a firm performs. These are the building blocks by which a firm creates a product valuable to its buyers. Porter (1985:38)

Porter (1985:39) asserts that these activities 'are the discrete building blocks of competitive advantage ... comparing the value chains of competitors exposes differences that determine competitive advantage'³⁵.

³³ Echoes Ansoff's reflection on synergy-- *the whole* (i.e., the system) *is greater than the sum of its part* – which was said (by this author) to encapsulate the essence of systems thinking. See Section 4.1.

³⁴ Porter does not reference Hayes and Wheelwright (1984) who, one year earlier, had advanced the concept of the "commercial chain" which is similar in scope (see Figure 4R) to the value chain.

³⁵ See section 2.1 for a detailed discussion of competitive advantage.

Figure 4R: Commercial Chain
Source: Hayes and Wheelwright (1984)

Figure removed

Figure 4S: The Value Chain
Source: Porter (1985:37)

Figure removed

Figure 4T: Value Chain Linkages
Source: Porter (1985:133)

Figure removed

Value activities include primary and support activities. Both groups are in turn grouped into three categories of varying importance based on their contribution to competitive advantage:

Within each category of primary and support activities, there are three activity types that play a different role in competitive advantage:

- Direct. Activities directly involved in creating value for the buyer, such as assembly, parts machining, sales force operation, advertising, product design, recruiting, etc.
- Indirect. Activities that make it possible to perform direct activities on a continuing basis, such as maintenance, scheduling, operation of facilities, sales force administration, research administration, vendor record keeping, etc.
- Quality assurance. Activities that ensure the quality of other activities, such as monitoring, inspecting, testing, reviewing, checking, adjusting, and reworking. Quality assurance is not synonymous with quality management, because many value activities contribute to quality.... Porter (1985:44)

Porter (1985:41) classifies procurement³⁶ i.e., PSM, as a support activity. 'A given procurement activity can normally be associated with a specific value activity or activities which it supports, though often a purchasing department serves many value activities and purchasing policies apply firm-wide' Porter (1985:41). In contrast to procurement, he classifies marketing and sales as a primary activity.

Porter (1985) elevates the importance of the interdependent connections between value activities.

Although value activities are the building blocks of competitive advantage, the value chain is not a collection of independent activities but a system of interdependent activities. Value activities are related by linkages within the value chain. Linkages are relationships between the way one value activity is performed and the cost or performance of another. ... Competitive advantage frequently derives from linkages among activities just as it does from the individual activities themselves. ... A firm must optimize such linkages reflecting its strategy in order to achieve competitive advantage. Porter (1985:48-49)

Porter (1985:50) notes that 'managing [these] linkages is a more complex organizational task than managing the value activities themselves'. Lamming (1993) also observes that these linkages are often more strategically important than the actual value activities performed:

If each stage in the process were a separate, independent firm, there would be a natural concern within each to define strategies, etc. When the entire chain is viewed, however, it soon becomes clear that it is the way in which the stages interact, and in which their interdependence is recognized, which determines how well the chain functions as an

³⁶ Porter (1985:40-41) characterises procurement as including 'activities such as qualifying new suppliers, procurement of different groups of purchased inputs, and ongoing monitoring of supplier performance. Procurement refers to the function of purchasing inputs used in the firm's value chain, not to the purchased inputs themselves. Purchased inputs include raw materials, supplies, and other consumable items as well as assets such as machinery, laboratory equipment, office equipment, and buildings'.

efficient value-adding process (i.e., it is possible to envisage excellent functions, poorly coordinated, which therefore constitute an inefficient chain). Lamming (1993:91)

Porter (1985) recognises the important role played by procurement in optimizing and coordinating activity linkages across the boundaries of the firm (i.e., optimizing / coordinating the value-added activities of one firm's value chain with those of another firm's – see Figure 4T):

The linkages between suppliers' value chains and a firm's value chain provide opportunities for the firm to enhance its competitive advantage. It is often possible to benefit both the firm and suppliers by influencing the configuration of suppliers' value chains to jointly optimize the performance of activities, or by improving coordination between a firm's and supplier's chains. Supplier linkages mean that the relationship with suppliers is not a zero sum game in which one gains only at the expense of the other, but a relationship in which they both can gain. Porter (1985:51)

This role extends to buyers' value chains as well as suppliers' value chains.

Buyers also have value chains, and a firm's product represents a purchased input to the buyer's chain. ... Differentiation, then, derives fundamentally from creating value for the buyer through a firm's impact on the buyer's value chain. Value is created when a firm creates competitive advantage for its buyer—lowers its buyer's cost or raises its buyer's performance. Porter (1985:52-53)

These inter-firm linkages are embedded in a larger stream of activities which Porter (1985) labels the “value system”; the value system is the sum of the value chains of the firm, its suppliers, its customers, and its channels to those customers. He distinguishes between the upstream chain (comprised of the value chains of a firm's suppliers), the downstream chain (comprised of the value chains of a firm's customers and the channels to those customers), and the internal chain (the firm). See Figure 4U.

Porter (1985)'s categorization tacitly recognizes a crucial distinction between different inter-firm relationships within most value systems. It acknowledges the implicit or explicit bifurcation of the firm into a buy-side and a sell-side. It visually depicts two associated internal business functions (i.e., purchasing and marketing) as oriented towards opposite ends of the value system:

A chasm of significant size exists between the purchasing and marketing sides of most organizations. This chasm often consists of physical and emotional distance and is embedded in the organization's structures and culture. At many companies, it is easier to develop cooperative relationships with external supply chain members than it is to break down the silos that exist around individual functions. Fawcett and Magam (2001:53)

This “chasm” is apparent when examining the names of other value system frameworks, all which are ultimately derived from McKinsey's “Business

Figure 4U: The Value System
Source: Project ION (1998:43)

Figure removed

**Figure 4V:
Value Chain Analysis – Integration of the Partnership Systems
Source: Cousins (1994:30)**

Figure removed

Figure 4W: The Value-Creating Network Development Process
Source: Campbell and Wilson (1996: 136)

Figure removed

System”: the *supply* chain: Christopher (1992); the *customer* chain: Schonberger (1990); the *demand* chain: Lee and Whang (2001), Cavinato (2002); etc. Kornelius and Wynstra (1996) document the prevalence of such ‘either/or’ thinking in organisations.

Internal functions responsible for external relationships are in most organisations still organized according to the traditional ‘either/or’ model for external counterparts: either a customer or supplier. Following the distinction between different groups of external counterparts, clear distinctions are made within organisations between the internal functions of marketing and purchasing. On one side of the company, we find Marketing and Sales, operating on output markets, and dealing with customers. Purchasing, operating on input markets, and dealing with suppliers, is situated on the other side of the company. *Both Kraljic (1983) and Keough (1993), for example, speak in terms of purchasing as the opposite of sales.* Relationships are formed, be it partnerships or not, by the customer’s purchasing function in the case of suppliers, and by the supplier’s sales function in the case of customers. [emphasis added] Kornelius and Wynstra (1996:414)

This either/or thinking is sometimes translated into differing conceptualizations of value³⁷ held within the firm. Cousins (1994) portrays gaps occurring on the supply- and demand-sides of the firm. See Figure 4V. Fawcett and Magam (2001:53) similarly document gaps stemming from conflicting conceptualization of value *within* the firm³⁸.

These gaps also extend across firm boundaries. For example, they exist at the level of the *dyadic* inter-firm relationship. ‘When a supplier is operating under one set of measures while a customer is using another set of measures, it is almost guaranteed that performance gaps will occur’ Fawcett and Magam (2001:53). They also exist across the entire *value chain* increasing the likelihood that total value will be reduced.

The unfortunate outcome is that the overall system—the firm or supply chain—is sub-optimized. A figurative tug of war breaks out ... as each group pulls the firm in the direction that it perceives is best. Overall costs are inflated and customer service is diminished even as each operating unit strives diligently to excel. Fawcett and Magam (2001:66)

³⁷ See Section 5.1 for a detailed review of alternative economic definitions of value.

³⁸ Fawcett and Magam (2001:53) provide supporting anecdotal evidence. ‘Purchasers seem to be the most reticent in their endorsement of supply chain management as a valuable strategy—many continue to operate on the basis of adversarial buyer/supplier relationships that emphasize “price, price, price!” One manager who opted not to complete the survey made the following statement: “It is my understanding that supply chain integration (SCI) and supply chain management (SCM) extend well beyond vendor certification and get into partnering, information sharing, and innovative exchanges. I am not a proponent of that type of interaction with a supplier and, fortunately for me, my company has not tried to push me in that direction. It is my contention, and 20 years of purchasing experience bear me out, that management is most interested in the cost of the item purchased. There is little to no interest in total cost or innovative ways to get extra service or quality. I have worked at such large companies as While the buzzwords flew, when it came down to the final analysis, I was punished if I wasn’t buying at the lowest price. Many times management would assist me in finding a lower cost supplier. I learned early on that buzzwords were just buzzwords and innovative procurement techniques were only welcomed if they lowered the purchase price”’

Some authors propose replacing the value chain with the concept of value-creating networks³⁹. Harland (1996) envisages networks as the last of four ascending levels of supply chain organisation: (1) the internal chain (the firm); (2) the dyadic relationship (i.e., between the firm and a supplier); (3) the external chain (e.g., four firms linked linearly); and (4) the supply network⁴⁰. Harland (1996:S63) labels each of these a '*systems level* of supply chain management' [emphasis added]; in contrast, Douma and Schreuder (1998:216-217) label only the last of seven levels of exchange 'the system'⁴¹.

Viewing supply management from a systems perspective raises several complex questions. If a firm were to adopt a systems view of supply management, which system level should it choose? Whilst competitive advantage⁴² includes the goal of delivering "superior value" to customers, to which (whose) customers? Should all members of the network (i.e. system) share the same (value) goal? If so, what is the framework for the definition of value⁴³? Can a bifurcated view of value (e.g., buy-side/sell-side, demand-side/supply-side) be prevented or is it inevitable at all system levels⁴⁴?

Harland (1995) does not offer a guide to determine how far up / down the systems hierarchy one should ascend / descend in order to define value. Campbell and

³⁹ See Lorange (1988), Jarillo (1988) and Campbell and Wilson (1996). Since the focus of this thesis is at the triad-level (supplier – firm – customer) a detailed discussion of value-networks (suppliers' suppliers – suppliers – firm – customers – customers' customers), also called a 'business ecosystem' by Moore (1996), is beyond the scope of this thesis. The reader is directed to Project ION (1998) for an excellent review of the network literature. NOTE: The Inter-Organisational Networking (ION) Project was a three-year research project undertaken by an alliance of the Universities of Bath, Bristol and Cambridge. Project ION was sponsored by the Engineering and Physical Sciences Research Council (EPSRC). The aim of the project was to identify how successful inter-organisational [supply] networks can be created, operated, evaluated and re-created.

⁴⁰ To Harland's four levels Fawcett and Magam (2001:53) add the triad (a firm, its immediate supplier and its immediate customer).

⁴¹ See Section 4.4.

⁴² Recall from Section 2.1: Competitive advantage is defined as the unique configuration of interlinked activities, actor bonds and critical resources the firm uses to deliver superior value to enough customers at a low enough cost to generate wealth.

⁴³ Recall from Figure 4Q that Douma and Schreuder (1998) associated different theories of the firm (and therefore, this author asserts, different definitions of value) to each of these levels.

⁴⁴ Fawcett and Magam (2001:53) note: 'Despite the rhetoric surrounding the notion of managing the flow of materials from the 'supplier's suppliers to customer's customer', based on the companies included in this study, actual supply chain management practice focuses more on eliminating the silos that exist within the organization. Almost 60 percent of the companies interviewed have as their primary focus the establishment of world-class processes within their own four walls. Thus, at many companies supply chain management has taken over the role held by business process re-engineering' (page 51). 'There is little resemblance between the theory of supply chain management and actual practice. Nobody is currently managing the entire supply chain from suppliers' supplier to customers' customer. Very few companies have created the 'end-to-end' transparency needed to engage in full-fledged supply chain management. Among the best of the best supply chain companies, integrative practices span a triad of companies—typically the company plus up and downstream one tier. ... True integration behind the first tier in either direction is rare.' (page 92)

Wilson (1996) provide such a viewpoint. They assert that the network captain⁴⁵ should impose an overriding “value concept” to guide and coordinate the efforts of different autonomous firms in the network. Campbell and Wilson (1996:142) label this “joint value objective(s)” the “*a priori* value vision”. See Figure 4W. They use the three value disciplines outlined by Treacy and Wiersema (1993)⁴⁶ to describe value.

Recall that Treacy and Wiersema (1993) (re)introduced *value-based strategies* using the term *value disciplines*⁴⁷. Strategic alignment was defined as the degree of congruence between a firm’s strategic management process and its adopted value-based approach to competition⁴⁸. Unfortunately, the concept of a value-based strategy at the level of the total supply network ‘is sparsely discussed in the literature’ as Project_ION (1998:54) note.

Project_ION (1998:54) observe that value-based strategy ‘could be perceived informally as goal congruence amongst the parties’ (page 54). Using “goal congruence” as a definition of strategic alignment, one encounters general academic disagreement over a firm’s ability to manage goal congruence at the network level. For example, Hakansson, Snehota and other authors associated with the Swedish School of networks question joint value objective(s) at the network level:

Their [Hakansson and Snehota’s] view is that networks cannot be managed as a whole. Companies manage dyadic relationships [see Figure 5X] and may influence the rest of the network, but they cannot manage networks as such. It is therefore problematic to merge the theoretical, descriptive work on networks and the operational, prescriptive work, in order to develop an operational theory of supply networks. Project_ION (1998:65)

Cox (1998) and Cox, Sanderson et al. (2000)⁴⁹ also question a joint value objective at the network level; they based their argument not on the inability to manage relationships at the network-level but rather on its inappropriateness. The

⁴⁵ Project_ION (1998:24) note that the role of the network captain was originally proposed by Jarillo (1988) who ‘suggests strategic networks are set up by a “hub” firm who then pro-actively manages the networks in order to gain competitive advantage over competitors’.

⁴⁶ The three are customer intimacy, product innovation and efficient operations (low-cost). See Section 2.2 for detailed discussion.

⁴⁷ In Section 2.2 this author noted that Treacy and Wiersema (1993) (re)introduce value-based strategies since their value-disciplines echo Porter’s earlier generic strategies.

⁴⁸ See Section 2.4 for a detailed discussion of strategic alignment.

⁴⁹ Hereafter referred to as the “Birmingham Group”, led by Professor Andrew Cox of the University of Birmingham School of Management. This author labels it a group and not a school, since its chief advocates are located at a single institution.

**Figure 4X:
IMP Interactive Model For Buyer-Seller Relationships
Source: Hakansson (1982)**

Figure removed

Figure 4Y: Alternative value management systems

Concept	Value delivery system; Value exchange system	Value constellation; Co-makership/co-production	Value reinvention; Value innovation	Value stream	Power regime; Structured hierarchy dominance
Primary references	Lanning & Michael (1988); Lanning (1998)	Normann & Ramirez (1993, 1994)	Kim & Mauborgne (1997)	Womack, Jones et al. (1990); Lanning (1993); Womack & Jones (1994, 1996); Hines, Lanning et al. (2000)	Cox (1998); Cox, Sanderson et al. (2000)
Secondary references	Robson (1997) ⁴ ; Anderson & Narus (1999)	Kornelius & Wynstra (1996); Ford (1998); Zeithaml (1993); Van der Heijden (1993)	Baden-Fuller & Stopford (1992)	Rich and Hines (2000)	
Key ideas	Systematic customer value identification; delivery of a value proposition	Reconfiguration of customer – supplier roles; redefinition of product – service offering	Redefinition of value offering; Latent offerings	Quality, continuous improvement, Lean thinking/production/supply	Power, critical assets, monopoly, scarcity
Strategic alignment ¹ as...	Echoing (Lanning & Michael 1988); Strategic resonance (Brown, Lanning et al. 2000)	Transmutation of resources (Drucker 1955); activation of inert resources (Ford 1998)		Flow; policy deployment (cascade versus intervention)	Not applicable (process of appropriation and control by firm within value chain)
Strategic management school(s) ²	Design, Cognitive	Positioning, Learning, Configuration	Design, Entrepreneurial, Configuration	Positioning, Learning, Cultural	Power, environmental
Value viewed primarily as:	Adjective (customer value); Verb (questioning the customer experience) N/A	N/A Verb (questioning production- consumption roles); Noun (redefined offering)	N/A N/A Noun (redefined offering)	Adjective (customer value); Verb (<i>duetero learning</i> ⁵); Noun (absence of <i>muda</i>)	N/A N/A Noun (critical assets)
Support of value first principles ³					
1. Align purchasing/corp. strategies	×	○	○	×	×
2. Balance multiple objectives	○	×	×	×	○
3. Adopt systems perspective	○	○	×	×	--
4. Ensure value flows	○	○	○	×	--
5. Use ultimate customer's perceptions to understand value	×	*	*	*	--
Notes	¹ See Section 2.4 for detailed discussion of strategic alignment ² See Section 2.3 for review of Mintzberg (1998)'s twelve schools of strategy and their related conceptualisation of value; see also Figure 4N ³ Based on primary references ⁴ See Figure 2E. ⁵ Lanning (1993); see Section 5.3				
Key:	× Accepts this value first principle -- Rejects this value first principle ○ Does not address this value first principle * Only partially addresses this value first principle				

Figure 4Z: Lean Framework
Source: Hines and Cousins (2000:438-439)

Figure removed

Birmingham Group argue that the *purpose* of network strategy is the *appropriation* of value by powerful firms (i.e., those with control of critical assets) from less powerful firms (i.e., those without control of critical assets). ‘Sustainable success is defined as the ability by individuals or companies to maximize their capacity to appropriate and accumulate material wealth for themselves in an environment of absolute and relative material scarcity’ Cox (1998:15).

Most writers on value systems, however, do not support the Birmingham Group’s value tenets. See Figure 4Y. The majority contend that firms should elevate the process of value *creation* and value *delivery* over that of value *capture* and value *appropriation*, recognizing the fact that most industries are contested markets whereby competitive advantage is not readily secured (i.e., they are not sustainable monopolies)⁵⁰. In other words, these writers prioritize the components of value management differently than do Birmingham Group members.

But what are these components of value? To answer this question, this author will now discuss applying systems thinking to value management. He will review the increasing appeals by writers in the academic literature for firms to adopt an holistic value management system.

4.6 Systems thinking and value management

Multiple rubrics exist to categorize processes within a value management system⁵¹.

Unsurprisingly multiple names are given to these systems. For example, Woodruff

⁵⁰ Since this thesis focuses on gaining understanding into the definition and management of value by firms, a detailed economic refutation of the Birmingham Group’s writings are beyond its scope. The reader is directed to the following authors for further discussion of several problematic assumptions inherent in the Birmingham Group’s writings: (1) the absence of substitute products (Porter (1980), Gould and Ferguson (1980), Porter (1985)); (2) the ability to appropriate invisible assets, i.e. human knowledge (Day (1990)); (3) the appropriateness of non-cooperative strategies in game theoretic situations (Axelrod (1984), Aoki (1984), Ichiishi (1992), Nalebuff and Brandenburger (1996)); (4) the sustainability of monopoly rents (Gould and Ferguson (1980), Baumol, Panzar et al. (1988)); (5) the omission of transaction costs when discussing firm size (Williamson (1975), Williamson (1985)).

⁵¹ Recall that this author reviewed in Section 4.3 “The St. Gallen Management Concept” (Bleicher (1999)) that underlies Gomez (1999)’s “Integrated Value Management” approach to strategy. See Figure 4.3. This author also discussed Gharajedaghi (1999) who stressed the role of systems thinking in strategic management to enable firms to adopt to the “shift of paradigm” required of today’s ‘game changing’ environment. See Figure 4G. This author reviews the two frameworks in the context of strategic management (Section 4.3) versus value management (Section 4.6), since they do not define the concept of value. This author notes, however, that all business strategies entail value management even if they do not define the term value.

and Gardial (1996:8) describe five processes within a value delivery strategy: identifying the value, choosing the value, providing the value, communicating the value and assessing the delivered value. Referencing Moore (1996), Freeman and Liedtka (1997) differentiate value creation from value capture but do not name the overall system:

It is important, first, to differentiate between the two processes of value creation and capture. James Moore has used the terms 'value space' and 'deal space' to do this. Value space is the opportunity space that exists to create value by reconfiguring the business processes. This space, he contends, must be significant in order for cooperation to work. ... The driver of the value capture formula, on the other hand, has generally been seen to be bargaining power. The sources of this bargaining power do not differ materially from the sources that Porter (1980) describes in his 'five forces' model. The major difference here is that we are concerned with our positioning within an ecosystems value chain, than within an industry. Freeman and Liedtka (1997:290)

Lanning (1998:6) posits three processes within what he labels the value delivery system: choosing the value proposition, providing the value proposition, and communicating the value proposition. Anderson and Narus (1999:5) identify three value processes – understanding value, creating value, and delivering value – in what they label business market management. Hines and Cousins (2000:438) include four processes in value stream management: understanding customers and what they value, defining the internal value stream, eliminating waste / making information and products flow by customer needs, and extending the definition of value outside one's company. (See Figure 4Z)

The purpose of this review is not to recommend one of these frameworks, but rather to outline comprehensively the elements that should be included in *any* value management system. Figure 4Y demonstrates the need for such a comprehensive list. The value systems outlined support this thesis's value first principles differently. Most of the differences (with the exception of the Birmingham Group) stem from an author or group of authors not addressing a particular first principle rather than from disagreement *per se*. This author asserts that these (and any other) partial views are the result of using incomplete definitions of value. Figure 4Y illustrates that value definitions are in fact generally incomplete (i.e., they do not reflect value as a noun, adjective and verb.

For example, the Birmingham Group posit value capture to be the essence of a firm's strategy. Since value capture is equivalent to the process of securing a greater share of an industry's profit margins⁵², they *implicitly* equate value with profits. However, they *explicitly* define value as critical assets. Yet they fail to explain how critical supply chain assets create such profits [i.e., the object of value capture] other than referencing the assets' inimitability⁵³. Cox (1998) himself confronts the limitations of this incomplete conceptualization of value:

Owning, controlling, and leveraging those resources which cannot easily be imitated in supply chains is the key to success. These resources, *which allocate value in key supply chains*, are referred to as critical supply chain assets. [emphasis added] Cox (1998:2)

What is the value the critical assets are allocating? Whatever it is, Cox (1998:15) claims that it should flow to the firm even at the expense of the firm's customers:

Companies do not exist to delight customers or to pass value to them efficiently; companies exist to appropriate and accumulate value from customers. They will, therefore, only maximize the value which they pass to the customer if they are forced to do so by their need to operate in proper competitive markets. Cox (1998:105)

Surely customer preferences (i.e., value as an adjective) play some role in separating customers from their money. Preferences help guide purchase decisions whenever customers have options. Such choice is absent only in command economies and in other restricted circumstances⁵⁴. Yet the Birmingham Group completely ignores the important role of customer preferences.

Lanning and Michaels (1988) and Lanning (1998) – supported by Woodruff and Gardial (1996), Robson (1997) and Anderson and Narus (1999) – *elevate* the role of customer preferences in the value delivery system⁵⁵. A firm's attention to customer

⁵² The reader is directed to Gadish and Gilbert (1998) for an excellent discussion of how firms capture a greater share of an industry's 'profit pools'; see also Slywotzky (1996) for a discussion of 'value migration' across firms in a value chain.

⁵³ To be a source of competitive advantage, Collins and Montgomery (1995) assert that a resource must pass *five* external market tests of its value. Inimitability is only the first of the five. The others include (2) durability which is 'how long a resource will last in providing value before it is overtaken by innovation either within the industry or outside it', (3) appropriability, (4) substitutability and (5) competitive superiority which 'refers to a market assessment of how a resource compares to those of the firm's competitors'. The Birmingham Group focuses on the first and third tests ignoring Collins and Montgomery (1995)'s other three tests. Curiously, Cox (1998) (pages 122 and 233) cites Montgomery (1995), one of the co-authors of the previous five tests, as supporting his theory of business success which he grounds in the concepts of asset specificity and monopoly power.

⁵⁴ See Footnote 50 in Section 4.5 in which this author discusses the problematic economic assumptions of the Birmingham Group.

⁵⁵ Lanning (1998) clearly intends his use of the word system to connote an integrated and holistic approach to value management. 'A consensus in management theory has been that to maximize long-term success, a firm should manage its businesses as integrated systems. A business is a system because its functions, resources, and processes interact with each other and thus affect the ultimate outcome. Obviously, these individual elements should not pursue disparate, inconsistent agendas. Unfortunately, they frequently do, which in turn sub-optimizes the performance of the system' Lanning (1998:149).

value (value used as an adjective) is gauged by its focus on customer experiences as embodied in its value proposition⁵⁶:

Value [in the Value Delivery System] concerns a very different notion, a difference of fundamental importance to business strategy. It refers to the value, as compared to alternatives, of the resulting experiences customers derive by doing business with the organization. The difference in perspective means that an organization bases its decisions about products and services and how they are developed, made and distributed entirely on the profitable superiority of the resulting experiences for customers. Lanning (1998:7-8)

According to Lanning (1998:1), the firm's resources (i.e. critical assets) enable but do not determine customer value: 'It follows that a firm's actions and resources in any business should be determined by an explicit decision of what value proposition to deliver and how'. To do so otherwise is to place the cart before the horse:

This traditional approach of beginning with the organization and moving outward toward the customer, while it seems rational, is profoundly backwards. It starts with the means and tries to find the ends that fits. A chosen value proposition determines requirements for providing and communicating it, which in turn determines the required vehicles. The vehicles must not be allowed to determine what value proposition to deliver. ...Lanning (1998:92)

Lanning (1998) opposes the Birmingham Group's power-based approach to business strategy. His disagreement is very much based on his differing conceptualization of value:

By focusing so hard on exerting power, instead of understanding and profitably delivering superior value, an organization often loses power. By focusing instead on becoming customers, discovering and profoundly understanding what would truly be most valuable to them, an organization gains tremendous power. Power over competitors, suppliers, and customers. [emphasis added] Lanning (1998:19)

Attention is drawn to three important points about his conceptualization of value.

Firstly, Lanning (1998) does not advocate giving the customer whatever they expect.

The value proposition requires critical choices by both the customer as well as the supplier.

A winning value proposition is often a tradeoff, with some resulting experiences superior and some inferior to the customer's alternatives. ... But business cannot deliver everything to everyone, ever. ... Delivering a winning value proposition often requires convincing customers to accept some hard tradeoffs, not just innocuous pabulum. Lanning (1998:27-28)

⁵⁶ Lanning (1998:xv) describes a value proposition as 'the entire set of resulting experiences, including price, that an organization causes some customers to have' (page 55). 'To "deliver" a value proposition means causing, intentionally or not, a customer actually to have and be aware of the experiences in that proposition. This delivery consists of two basic functions: 'providing' and 'communicating' the value proposition. Providing it means that if and when the customer actually accepts the proposition, thus buying and/or using some product or service, the customer will actually have the experiences, including the price, in that value proposition. Communicating that value proposition means that before, during and after accepting it, customers understand, appreciate, and believe they will have those experiences' (page 57). 'Any organization that attempts to sell something delivers a value proposition, *de facto*' (page 59). 'To choose genuinely a value proposition is to make the central decision of business strategy, for a value proposition defines the price objective of a business' (page 61).

Secondly, Lanning (1998) qualifies Campbell and Wilson (1996:142)'s "*a priori* value vision" (i.e., joint value objective(s) in the supply chain⁵⁷) by specifying how far up / down the systems hierarchy a firm needs to ascend / descend in order to define value. He posits that firms should focus on the primary customer entity:

For each business, the customer entities at some level in the chain will be the most essential for the organization to understand. ... These most essential customers are primary entities. The more immediate customers between the organization and these primary entities are best understood as supporting entities. ... Primary entities do now or potentially could use some product or service the organization could make or help make. ... Primary entities also make decisions that greatly impact the business's success, even if only indirectly. Their decisions may impact intermediary entities between them and the organization and thereby determine the organization's revenues. If the organization also can significantly affect the value proposition that these entities ultimately obtain, then it is crucial to the organization's success to choose and deliberately deliver that proposition. Entities (organizations of individuals) which are at the most distant level in the chain where the criteria are still met should be considered the primary entity. For, it is the choice of value proposition to these customers that must shape the design of the business. Lanning (1998:154)

Thirdly, Lanning (1998) asserts that to understand value the firm must adopt the primary customer entity's perspective in order to experience the customer's perceptions. He compares this to the phenomenological⁵⁸ approach inherent in anthropological and sociological research.

Becoming the customer is a mindset and process similar in some ways to that of an anthropologist or sociologist. Social scientists often gain their deepest insights by systematically exploring the actual behaviors, beliefs, and motivations of a population under study. An anthropologist may spend time actually living among the population, temporarily adopting their language, customs and even their values in order to understand who they are and why. A sociologist must cumulatively spend years of a career observing and documenting behaviors and interactions of the social groups they study. Most social scientists would not even consider reporting conclusions about peoples or societies without this direct, in-depth, observational exploration. Managers must learn to conduct a similar kind of exploration if they want to get beyond a superficial and hazy comprehension of the most important population for their success—their customers. Lanning (1998:220)

Beyond describing the firm's value offering as the materialization/vehicle of customers' preferences and experiences, however, Lanning (1998) does not specifically examine the offering.

Normann and Ramírez (1993) and Normann and Ramírez (1994) focus on the value offering *per se*. They define the offering as:

⁵⁷ See discussion in section 4.5. See also Figure 4W.

⁵⁸ The phenomenological and positivist traditions of research will be discussed in detail in Section 7.1.

The physical and 'in-person(s)' embodiment of assets made up of knowledge and experience, in themselves the result of myriad activities performed by many people dispersed in time and space. Assets and resources imply the storage of activities which have been configured for a particular purpose, for a particular actor in a given location at a given time. Normann and Ramírez (1994:49-50)

They assert that thinking about the value embedded in a firm's value offering(s) requires a new logic. Traditional boundaries between customer and supplier have blurred. As a result, Porter's value chain model imperfectly explains value creation in today's new business reality:

With value chain models it has become almost impossible to consider a supplier as a customer, or a customer as a supplier, for the value chain model has inherent linear, unidirectional and sequential characteristics which it imposed on the reality it modeled. In the value chain model, value is not really 'created' any more, it is instead 'added', step by step. ... Much of value production, when seen in this way, is nothing other than cost adding; and the very sense of 'value' has tended to be limited to the 'cost adding' which the model allows for. Many functional units such as training or advertising in firms whose business has been modeled in value chain terms thus know how much they cost, but not how much value they create. Normann and Ramírez (1994:xvi)

The assignment of supply chain activities between the supplier and the customer has also changed reflecting the adoption by the supplier of an "enabling" role rather than a "relieving" role.

The 'goods'-based value chain notion implies a relationship between supplier and customer which is, primarily, a 'relieving' one. Here the supplier will do something, such as building a plane, for the customer, relieving him of having to build his own plane. Yet more and more businesses are moving from a relieving logic to an enabling one, where the 'supplier' does something that makes it possible for the 'customer' to do what it does better. Normann and Ramírez (1994:39-40)

They label this logic co-production⁵⁹, and the new relationships between customers and suppliers the 'value constellation'. Normann and Ramírez (1994) assert that, based on the logic of co-production, activities formerly viewed as value consuming should now be viewed as value creating, since they are part of the customer's value creation system.

Our view of the offering as the boundary where actors come together to co-produce value leads us to consider actors coming together in 'value constellations'. From this more relevant value constellation perspective, value is co-produced by actors who interface with each other. They allocate the tasks involved in value creation among themselves and to others, in time and space, explicitly or implicitly. This opens up many opportunities for defining relationships between actors and reassigning activities. If we look at a single relationship in a

⁵⁹ Similar to Normann and Ramírez (1994)'s notion of "co-production", Merli (1990) earlier posited "co-makanship" as the final evolutionary stage of industrial firms. Hines, Lamming et al. (2000:139) equate "co-makanship" with "lean" (which will be discussed later in this section). "Co-makanship" may also be described as "lean" or "agile", which are all terms that describe elements of the models and can be applied almost interchangeably' Hines, Lamming et al. (2000:139).

co-productive system (for example, that between customer and supplier) this view implies that the customer is not only a passive orderer/buyer/user of the offering, but also participates in many other ways in consuming it, for instance in its delivery. Etymologically, consumption means value creation, not value destruction; this sense of consumption is inherent in the 'value constellation' point of view. Normann and Ramírez (1994:54)

The value of an offering is thus a function of the way that activities are assigned to the actors within a value constellation. They label this value the offering's "leverage value" and claim that an offering's leverage value increases as it becomes more useful to the customer's value-creating logic⁶⁰. 'Leverage arises if the offering triggers customer activities which make the customers more effective, thus enabling them to create value in a better way, whatever 'better' means for the customer' Normann and Ramírez (1994:59). Similar to Lanning (1998)'s primary customer entity, Normann and Ramírez (1994) claim that a firm can increase its offering's leverage value by looking beyond its immediate customer to its customer's customer when designing its value offering.

Based on this conceptualization of value, Normann and Ramírez (1994) disagree with the Birmingham Group's power-based approach to strategy for three reasons. Firstly, they assert that value calculations are now based on the customer's value-creation system rather than that of the supplier's.

It has become crucial to begin calculating costs and revenue as manifested first and foremost in the customer's value creation rather than at one's own factory. This, rather than production costs, is now the basis of economic calculations. Normann and Ramírez (1994:79)

Secondly, they assume a new basis for financial success, since 'in the final analysis, firms do not make money from customers (or, of course, their products!) but from their customer's value creation activities' Normann and Ramírez (1994:80). Thirdly, they posit a new basis for competitive advantage. 'The competitive battle today is therefore centred on positioning the firm to occupy a sufficiently large role in supporting the customer's value creation' Normann and Ramírez (1994:82).

⁶⁰ This author observes similarities between the following concepts: the "customer's value-creating logic" and "co-production" (Normann and Ramírez (1994)); "decision point analysis" (Hines, Lamming et al. (2000:41)); and the "order penetration point" and "value offering point" (Hoover, Eloranta et al. (2001)). These authors and their associated concepts will be reviewed in Section 5.5.

Like the Birmingham Group, Normann and Ramírez (1994) do not address customer preferences (i.e., value as an adjective) in any detail. Writers associated with the Lean⁶¹ School do provide such detail. Like Lanning (1998), they *start* with the understanding that ‘value can only be defined by the ultimate customer’ Womack, Jones et al. (1990:16) They define value as ‘a capability provided to a customer at the right time at an appropriate price, as defined in each case by the customer’ Womack, Jones et al. (1990:311). This capability is enabled via some combination of products and services.

Lean production

The origins of lean production are commonly attributed to Taiichi Ohno and the Toyota Motor Company. Ohno shaped what is now known as The Toyota Production System⁶², possibly the most familiar example of lean production. Lean production represents a manufacturing approach very different from the more frequently encountered mass production approach: it deploys teams of multiply skilled workers using flexible machinery to create a wide variety of products in high volumes. The lean approach is also characterised by several beliefs: that value is added principally at the point of production thereby emphasising *value creation*; that ‘problem solving is the most important part of any job’ Womack, Jones et al. (1990:199), that defects should be detected early, and that root causes should be traced / found thereby stressing double-loop learning / second-order change⁶³; that information should be freely shared; that supply relationships should be based on co-operative behaviours; etc.

Womack and Jones (1996) summarized these beliefs into five “lean first principles” that could be applied to most production situations: ‘Precisely specify value by specific product, identify the value stream for each product, make value flow without interruptions, let the customer pull value from the producer, and pursue perfection’

⁶¹ Womack, Jones et al. (1990:13) credit John Krafcik, a researcher with the International Motor Vehicle Programme (IMVP), as creating the term because lean producers use less of everything compared to mass producers.

⁶² The Toyota Production System will be reviewed in Chapter Five.

⁶³ See Section 4.2 for detailed discussion of double-loop learning / second-order change, and section 4.3 for *duerto learning*.

Womack and Jones (1996:10)⁶⁴. The concept of the “value stream” is critical to these lean principles. Womack and Jones (1996:19) define the value stream as ‘the set of all the specific actions required to bring a specific product (whether a good, a service, or increasingly, a combination of the two) through the three critical management tasks of any business: the problem-solving task running from concept through detailed design and engineering to product launch, the information management task running from order-taking through detailed scheduling to delivery, and the physical transformation task proceeding from raw materials to a finished product in the hands of the customer’.

The value stream extends across firm boundaries to include the activities of suppliers as well as customers. The value stream can therefore be considered a systems-level view of value-added activities within and across firms⁶⁵. According to Womack and Jones (1996)’s third and fourth lean first principles, value – as defined by the ultimate customer – should flow uninterrupted through the value stream. Unfortunately, such flow often does not occur; Womack and Jones (1996) contend that value is ‘hard to get right’.

While value creation often flows through many firms, each one tends to define value in a different way to suit its own needs. When these differing definitions are added up, they often don’t add up. Womack and Jones (1996:32)

This author asserts that part of the difficulty of getting ‘value right’ stems from the lack of a robust framework for defining value. As a result, he will now turn to alternative definitions of value found in the academic literature.

4.7 Conclusion

This chapter continued the detailed discussion of the five value first principles guiding this author’s research. Specifically this author discussed the third of the five principles: *adopt a systems view*. Accordingly he examined several key concepts in the literature. The author described *system thinking*; discussed the *Balanced Scorecard* in the context of systems thinking; explored the role of systems thinking

⁶⁴ There is considerable overlap between the “lean first principles” and this author’s “value first principles”. Commonalities will be discussed in Chapters Five and Six.

⁶⁵ Based on supply management *systems* defined in Section 4.5.

in *strategic management*; reviewed six *theories of the firm* (e.g., *neoclassical*, *transaction cost*, *agency-based*, *behavioural*, *resource-based*, and *competence-based*) using systems thinking precepts; and discussed the relevance of systems thinking to *supply management* and *value management*.

The proceeding chapter will continue the discussion of the five value first principles. When *adopting a systems view* (the third principle), the literature asserts that one *ensure that value flows across the system* (the fourth principle). To support this assertion, this author will review *alternative definitions of value* from the economics literature; describe *total quality management* and *continuous improvement*, and their contribution to *value-add* within *value chains*; explore the concept of *value flow* within the *value stream*; discuss the role of purchasing and supply management in achieving value flow; and examine inter-firm *reassignment of value stream activities* to increase value flow.

CHAPTER FIVE:
DISCUSSION OF VALUE FIRST PRINCIPLES
‘ENSURE VALUE FLOWS ACROSS THE SYSTEM’

5.0 Purpose

In the preceding chapter this author continued his detailed discussion of the five value first principles guiding this thesis's research. He discussed the third of the five value first principles: adopt a systems view. Accordingly he examined several key concepts underlying systems thinking and discussed strategic planning, performance management, economics and supply management in the context of systems thinking.

This chapter continues the discussion of the five value first principles. In adopting a systems view (the third principle), the literature asserts that one *ensure that value flows across the system* (the fourth principle). To support this assertion, this author will review the academic literature in order to:

1. Review alternative *definitions of value* from the economics literature;
2. Describe *total quality management* and *continuous improvement*, and their contribution to *value-add* within value chains;
3. Explore the concept of *value flow* within the *value stream*;
4. Discuss the role of purchasing and supply management in achieving value flow;
5. Examine inter-firm *reassignment of value stream activities* to increase value flow.

5.1 Economic theories of value

There are a myriad of definitions of economic value; the concept extends back to Greek and Medieval philosophy. See Figure 5A and Table 5A. Chief writers, however, can be comfortably grouped into ten different schools of value although there are few definitive start and end dates between schools. See Figure 5B. Each school was influenced by the events of its age (see Figure 5C) which influenced its conceptualization of value. Authors reexamined, modified and sometimes rejected earlier theories (see Figure 5D).

To remain focused on the objectives of this chapter, this author will review the ten schools at a high level. Each school will be placed in its historical context and its definitions of value outlined. At the close of the section, this author will discuss the implications for his thesis and research.

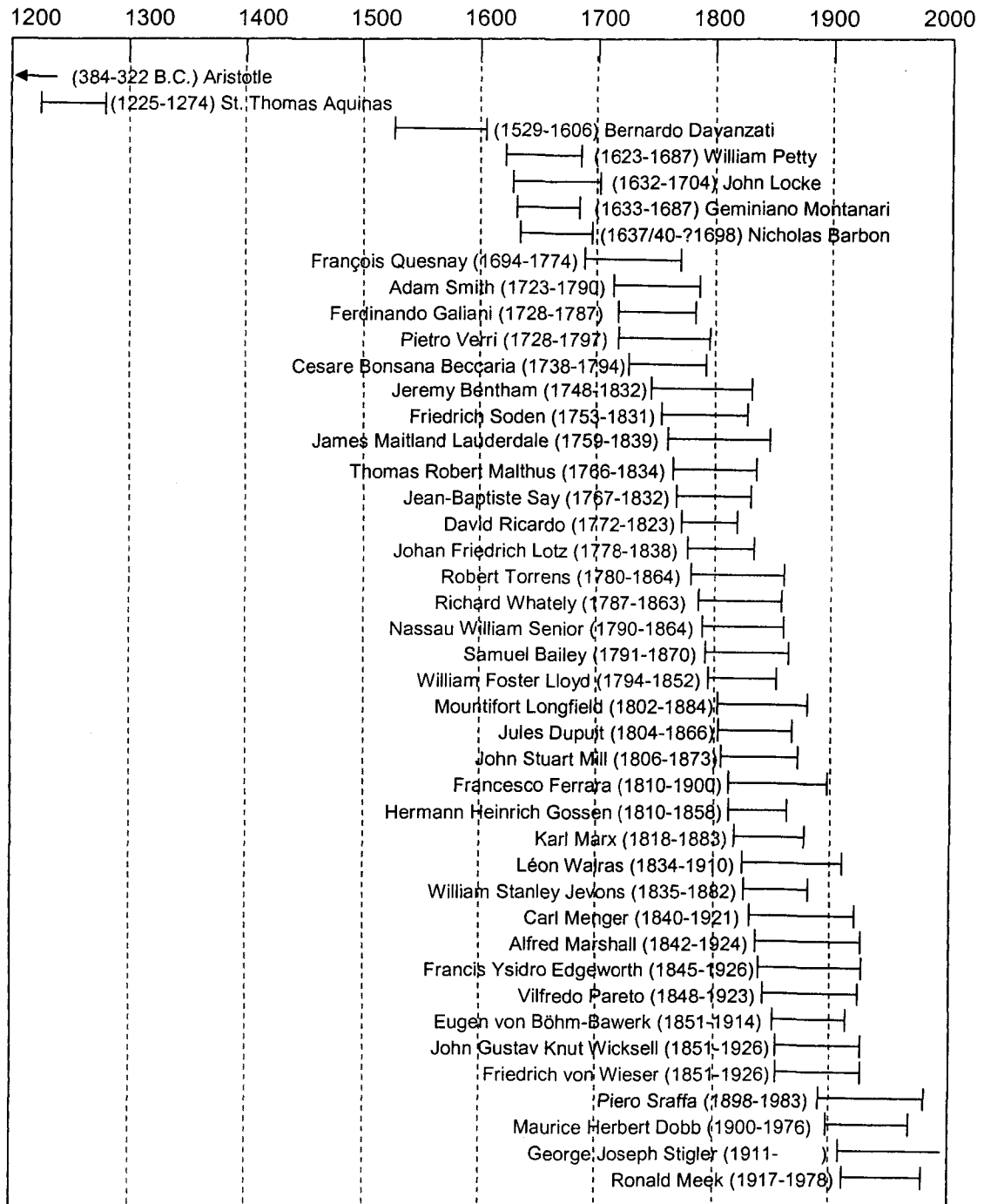
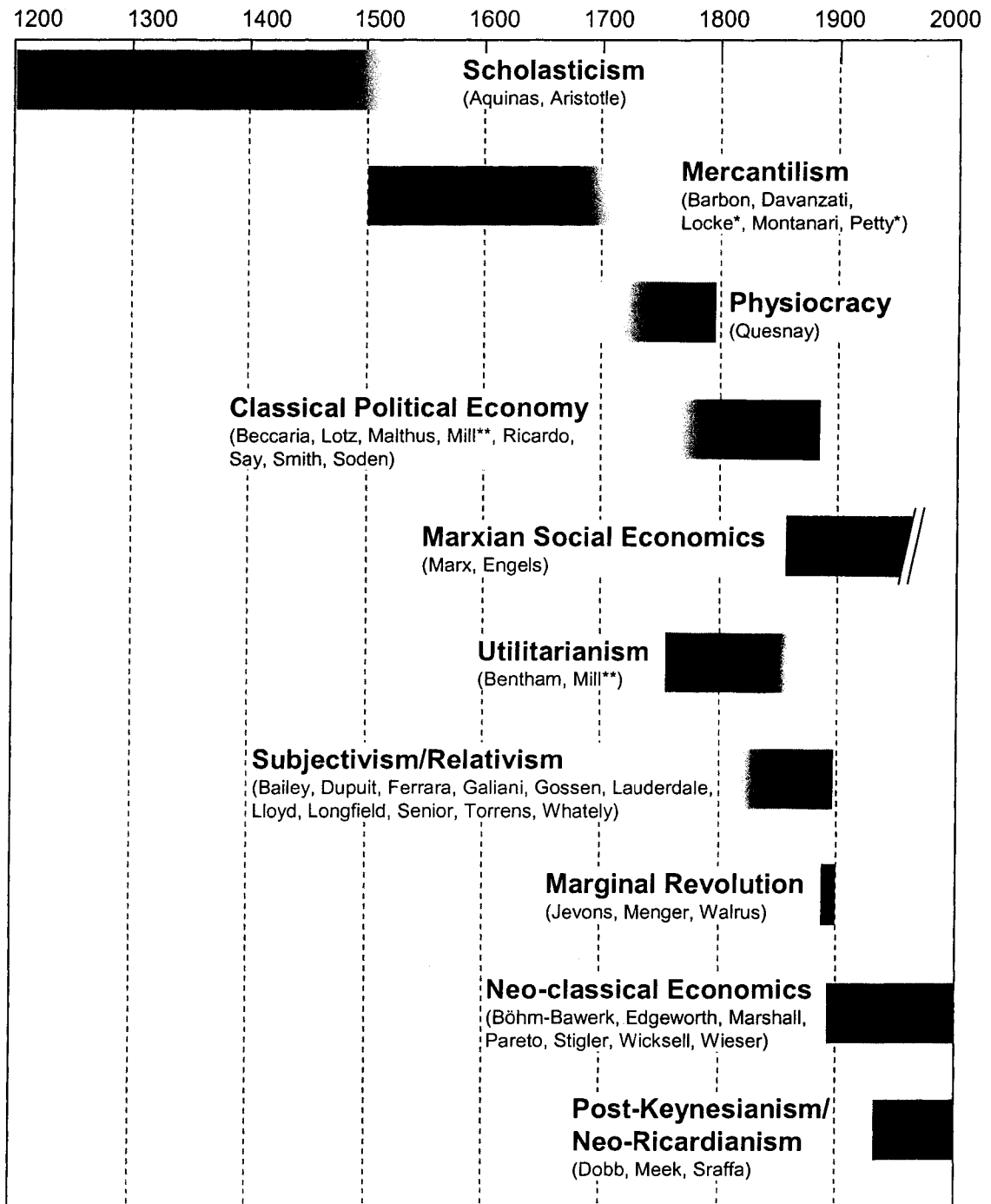
Figure 5A: Theory of value timeline – major contributors

Table 5A Major contributions to Theory of Value		
Author	Date	Work
Aristotle	300 B.C. (circa)	<i>Nichomachean Ethics</i>
Bailey, S.	1825	<i>A Critical Dissertation of the Nature, Measure and Causes of Value: chiefly in reference to the writings of Mr. Ricardo and his followers</i>
Barbon, N.	1690	<i>A Discourse of Trade</i>
Beccaria, C.	1771	<i>Elementi di economia pubblica (Elements of Public Economy)</i>
Bentham, J.	1776	<i>Fragment on Government</i>
Bentham, J.	1789	<i>An Introduction to the Principles of Morals and Legislation</i>
Davanzati, B.	1588	<i>Lezione delle monete (A Discourse Upon Coin)</i>
Dupuit, A.J.	1844	<i>De l'utilité et de sa mesure (Of Utility and its Measurement)</i>
Edgeworth, F.Y.	1879	<i>The Hedonical Calculus</i>
Edgeworth, F.Y.	1881	<i>Mathematical Psychics</i>
Ferrara, F.	1889	<i>Esame storico-critico di economisti e dottrine economiche (Historical-Critical Examination of Economists and Economic Doctrines)</i>
Galiani, F.	1751	<i>Della Moneta (On Money)</i>
Gossen, H.H.	1854	<i>Entwicklung der Gesetze des menschlichen Verkehrs und der daraus Fliessenden Regeln für menschliches Handeln (The Laws of Human Relations and the Rules of Human Action Derived Therefrom)</i>
Jevons, W.S.	1871	<i>The Theory of Political Economy</i>
Keynes, J.M.	1936	<i>General Theory of Employment, Interest and Money</i>
Lloyd, W.F.	1833	<i>A Lecture on the Notion of Value as Distinguishable not only from Utility, but also from Value in Exchange</i>
Locke, J.	1691	<i>Some Considerations of the Consequences of the Lowering of Interests and Raising the Value of Money</i>
Locke, J.	1695	<i>Further Considerations Considering Raising the Value of Money</i>
Longfield, M.	1834	<i>Lectures on Political Economy</i>
Lotz, J.	1811	<i>Revision der Grundbegriffe der Nationalwirtschaftslehre (Revision of the Fundamental Concepts of the Theory of National Economy)</i>
Marshall, A.	1890	<i>Principles of Economics</i>
Marx, K.	1858- 1859 (pub. 1939)	<i>Grundrisse der Kritik der politischen Oekonomie (Foundations of a Critique of Political Economy)</i>
Marx, K.	1867- 1894	<i>Das Kapital I (1867); II (1885); III (1894)</i>

Table 5A Major contributions to Theory of Value		
Author	Date	Work
Marx, K.	1905-1910	<i>Theorien über den Mehrwert (Theories of Surplus Value)</i>
Mathus, T.R.	1823	<i>The Measure of Value Stated and Illustrated</i>
Menger, C.	1871	<i>Grundsätze der Volkswirtschaftslehre (Principles of Economics)</i>
Mill, J.S.	1844	<i>Essays on Some Unsettled Questions in Political Economy</i>
Mill, J.S.	1848	<i>Principles of Political Economy</i>
Mill, J.S.	1861	<i>Utilitarianism</i>
Montanari, G.	1680	<i>Breve trattato del valore delle monete in tutti gli stati (A Brief Treaty on the Value of Currencies in all the States)</i>
Pareto, V.	1896-87	<i>Cours d'économie politique</i>
Petty, W.	1690	<i>Political Arithmetick</i>
Quesnay, F.	1758	<i>Tableau Économique</i>
Quesnay, F.	1767	<i>Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain</i>
Ricardo, D.	1817	<i>The Principles of Political Economy and Taxation</i>
Ricardo, D.	1823 (pub. 1951-1973)	<i>On Exchangeable Value and Absolute Value</i>
Senior, N.W.	1836	<i>An Outline of the Science of Political Economy</i>
Smith, A.	1776	<i>An Inquiry into the Nature and Causes of the Wealth of Nations</i>
Soden, F.	1804	<i>Die Nationalökonomie</i>
Sraffa, P.	1960	<i>Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory</i>
Sraffa, P. (ed.)	1951-1973	<i>The Works and Correspondence of David Ricardo</i>
Stigler, G.J.	1966	<i>The Theory of Price</i>
Torrens, R.	1821	<i>Essay on the Production of Wealth</i>
Verri, P.	1771	<i>Meditazioni di economia politica (Reflections on Political Economy)</i>
Walras, L.	1874	<i>Éléments d'économie politique pure (Elements of Pure Economics)</i>
Whately, R.	1831	<i>Introductory Lectures on Political Economy</i>
Wicksteed, P.	1888	<i>Elements of the Theory of Value or Worth</i>
Wieser, F. von	1889	<i>Der Natürliche Werth (Natural Law)</i>

Figure 5B: Theory of value timeline – schools of thought and major contributors

* Marx classified these authors as founders of *Classical Political Economy*

** Blaug includes Mill in both the *Classical* and *Utilitarian* schools

Figure 5C: Theory of value timeline – historical developments

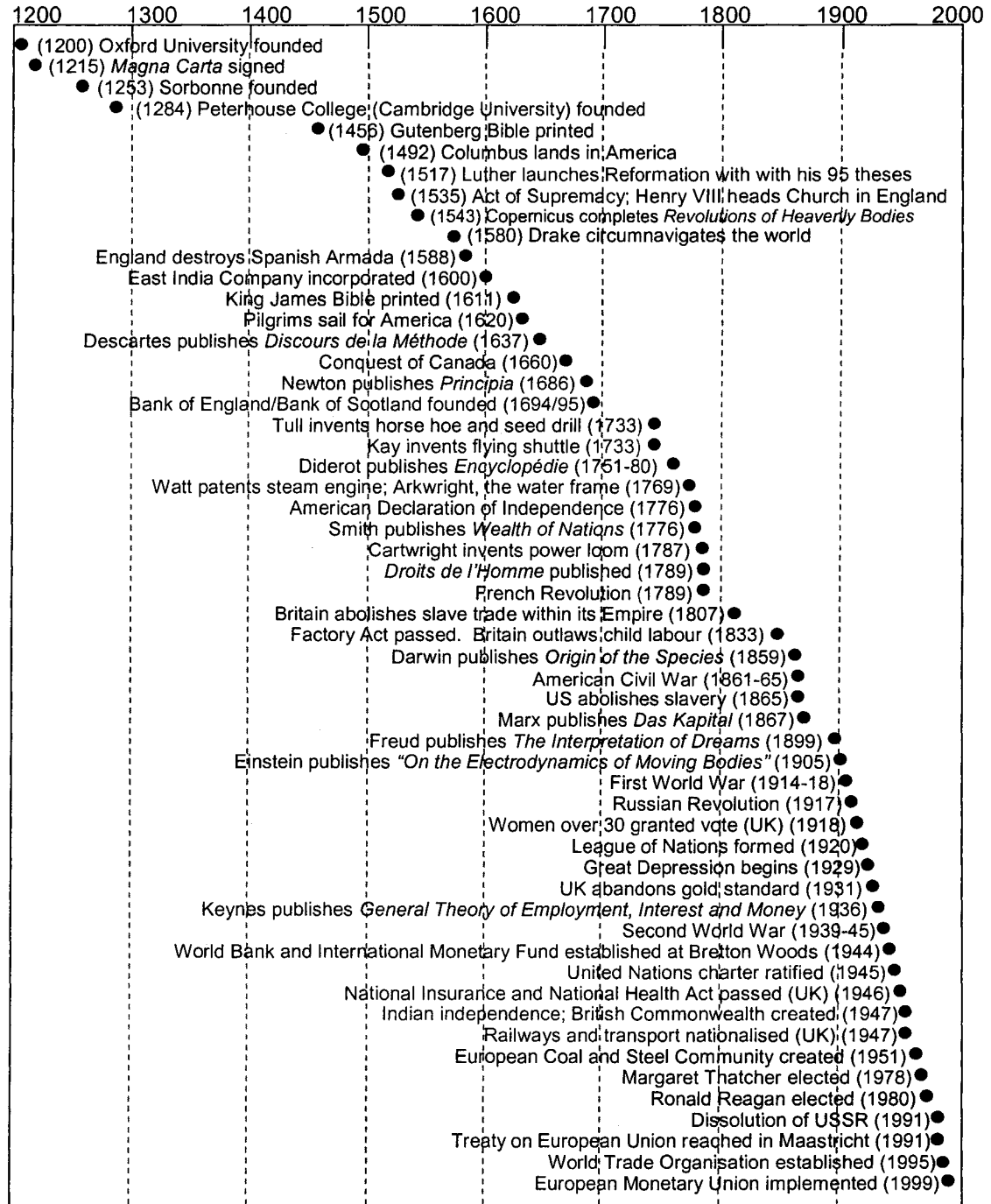
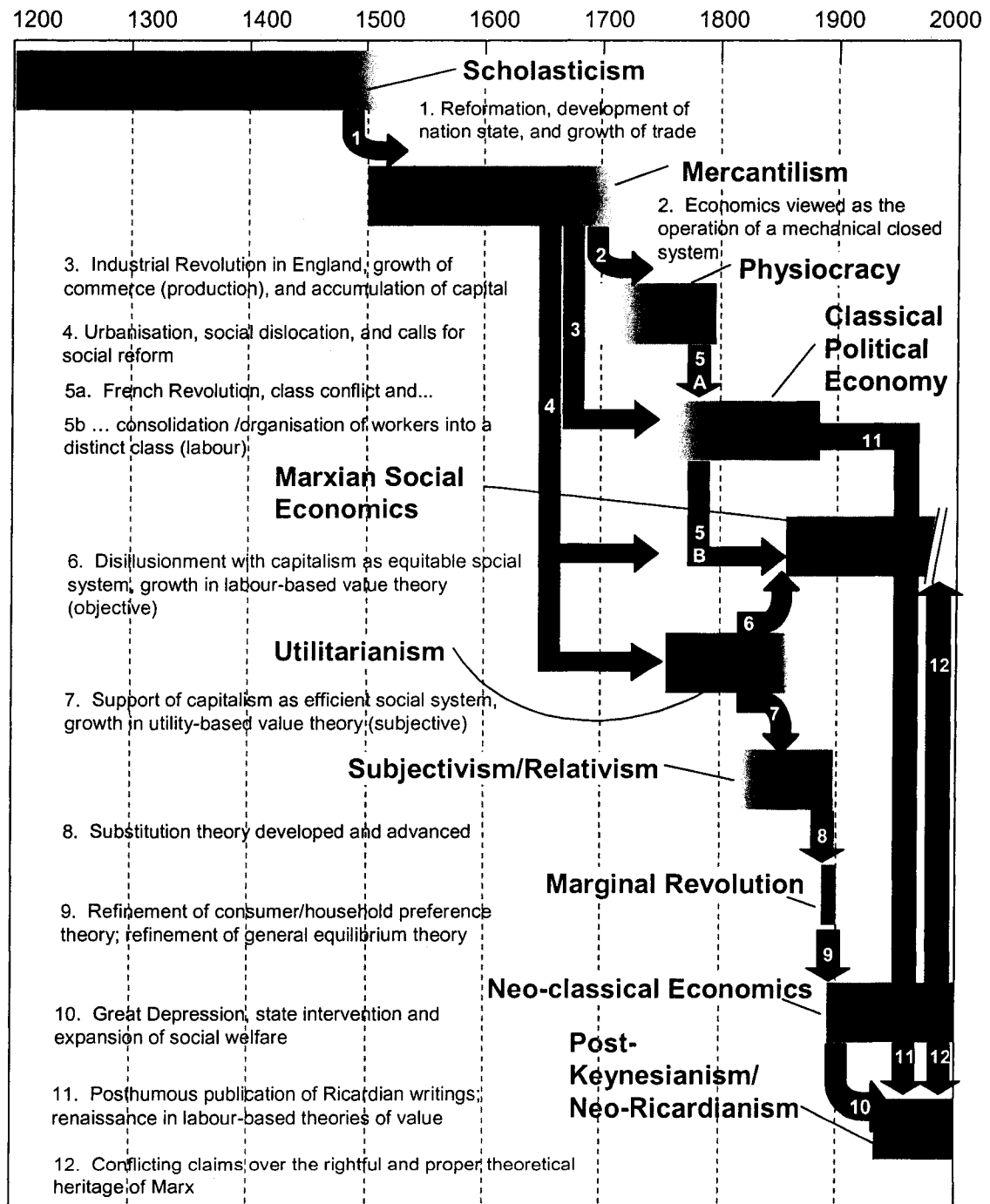


Figure 5D: Theory of value timeline – intellectual shifts

Scholasticism

Scholasticism describes the body of writing, developed in the Middle Ages by the Catholic Church, that was used to guide economic conduct. Scholastic economic thinking was influenced by the Bible, by canon and civil law, and by the writings of Aristotle. In the fifth book of *Nichomachean Ethics*, Aristotle argues that commutative and contractual justice requires goods to be sold as an *exchange of equivalents*. St. Thomas Aquinas introduced this Aristotelian conceptualisation of value into Church teaching using the concept of the *just price* which he claimed was based in natural law. This thinking was in turn disseminated at the great centres of learning established in Western Europe beginning in the thirteenth century.

Screpanti (1993) holds that the Scholastics were interested in understanding neither the nature of value nor its determination.

They believed that the just price *must* be such as to guarantee *commutative* justice, that is, equal exchange, in such a way that nobody can obtain more than he gives from the exchange of goods. If this price is 'just' because it corresponds to the natural law, it is also *true*, even though it cannot be observed – and, in a certain sense, even truer than the prices at which the goods are really exchanged on the market, which can be a little higher or lower than the 'just' price itself. Screpanti (1993:17)

The Scholastics' chief concern was the discouragement of usury and of trading with the aim of profit-making. 'Buying or producing a commodity for the sole purpose of reselling it at a profit was frowned upon and considered acquisitive and hence unethical' Lichtenstein (1983:29). With the rise of the merchant class – who transported goods over long distances expressly with the intention of selling them at a *profit* – the just price theory was discarded in the sixteenth century.

Mercantilism

The rise of the nation-state led to a symbiotic relationship between the merchant class and the crown. Trade assumed a central role in state affairs achieving its ultimate expression in crown companies like The East India Company, founded by Royal Charter of Queen Elizabeth I in 1600. Their influence should not be underestimated:

The East India Company was the single most powerful economic force that the world has ever seen. Its influence reached out to all continents and the consequences of its actions, both great and small, are the very fabric of history. The Company created British India;

founded Hong Kong and Singapore; [and] caused the Boston Tea Party.... The Stars and Stripes was inspired by its flag, its shipyards provided the model for St. Petersburg, its London chapel set the pattern for New England churches, its administration still forms the basis of India's Bureaucracy, and its corporate structure was the earliest example of a joint stock company. ... It had its own armies, navies, currencies, and territories.... [*The East India Company Book of Tea*, p. 6]

As the importance of trade grew, value was perceived as residing in exchange transactions. Economic value was defined neither in terms of satisfying preferences nor in terms of facilitating production (except in as much as it led to increased trade). Value was equivalent to accumulated *wealth*. The tangible manifestation of such wealth was the large stores of bullion (i.e., gold and silver) accumulated in the trading houses of London, Amsterdam, etc.

Physiocracy

The Physiocrats sought to improve the French agricultural economy to reflect conditions in England where, in contrast to France, farmers were rich and productivity was very high. The Physiocrats held the French system of agricultural taxation to be particularly oppressive. Using personal capital French tax collectors advanced to the state the taxes due by its farms; in return, these individuals were awarded the right to collect taxes – often at a profit – from the farms' peasants. The Physiocrats sought to increase wealth simultaneously for the crown and for the peasants by eliminating the profiteering role of these tax collectors.

The Physiocrats believed that all trading transactions were merely exchanges of goods of equal value; the value of these goods was therefore derived elsewhere. As a result, the Physiocrats asserted that the merchant class – like tax collectors – did not add any value and was burdensome to society. Profit earned by merchants violated the God-given natural laws that govern relationships between individuals in society. Assuming an agrarian view of the economy, the Physiocrats only regarded as productive (i.e., value-creating) activities directly connected with agriculture; trade and industry were to be regarded as sterile activities.

Classical Political Economy

Beginning with Adam Smith, increasing the efficiency and productivity of commercial activity – agricultural as well as manufacturing growth – became the major concern of political and economic theorists. Production was placed at the

cornerstone of economic inquiry. Classical economic theories attempted to quantify value at a detailed level in order to describe how total economic production might be increased. To quantify and analyse the source of economic value, classical economists introduced several types of cost and price – *production costs*, *natural prices*, *labour costs*, *market prices* and *exchange prices*.

Production costs are the foundation of classical economics. They are often referred to as *production prices* or *natural prices* by classical economists.

Smith employed the concept of *natural price*. This price was, in modern terminology, the long-run equilibrium price, or that price which would exist in the absence of any outside disturbances and after all market adjustments had taken place. It was the center of gravity around which market prices fluctuated. Lichtenstein (1983:31)

Production costs are generally calculated in classical economics using *labour costs*.

Labor became such an important element of society—it was, in fact, considered the universal element of cost—that many economists now came to look upon labor costs as the final source of exchange value, rather than costs in general. Additionally, rather than looking to the sphere of exchange for the source of profits, looking to the sphere of production now became more reasonable, not only because the employment of labor in production was responsible for creating an abundance of material goods, but also because the employment of labor yielded attractive profits to the employer. Lichtenstein (1983:30)

Labour costs attempt to quantify the human effort spent in the production of goods. While labour costs for classical economists represent a sizeable component of production costs, commentators continue to debate the portion of costs it represents. Labour costs can be conceptualised as either the value of the labour intrinsic to the good – the *labour embodied* in its production – or as the amount of labour obtained in exchange for a second good – the *labour commanded* by the first good.

Market prices, also referred to as *exchange prices* or *exchange values*, are determined by the supply and demand conditions for goods at a point in time. A good's market price, in the short-run, was assumed to oscillate around its natural price (i.e. its production cost). *Surplus value* (also referred to as *profit* or *economic rents*) constitutes the difference between a good's market price and its production cost (natural value) less any amount reinvested in production to maintain the system.

Classical economists (e.g., Smith, Ricardo, Mill, etc.) advanced alternative definitions of value based on differing combinations of these measures. For example, Smith develops an “adding up” theory of value in which wages, profits and rent are the three sources of exchange value. David Ricardo defines value as the labour embodied in a good. Mills attempts to unite the production and labour costs streams into a single classical theory of value, although he was considered unsuccessful by most economic commentators.

Marxian Social Economics

Marx shared with other classical economic thinkers the belief that value could be objectively quantified and that it was based in production. Three characteristics of Marxian value theory, however, differentiate it from prior value theories. Firstly, value is considered integral to material objects. Secondly, value is theorised as a social construct. Thirdly, capitalism is described as a system in conflict rather than a semi-harmonious system undergoing perfection.

Value according to Marx is not something intrinsic or abstract; it is not independent of the material world. Marxian theory of value originates in *the tangible*, i.e., *the commodity*. The commodity serves as the basic building block of production. Marx asserts that the concept of “*abstract*” value arises only as a result of exchange relationships. Since exchange is the mechanism for capitalist social relations, Marx considers abstract value to be a purely capitalist concept. In contrast, the source of *tangible value* is the *labour embodied* in the commodities that are exchanged. Marx asserts that the two are confused in capitalist society; “value” (the abstract concept) becomes “fetishised” assuming an importance greater than the underlying labour embodied (the “essence” of commodities).

Utilitarianism

Increasingly alarmed at the deleterious social consequences of the Industrial Revolution in England, the Utilitarians sought to advance a political philosophy whose objective was to ‘promote the greatest happiness of the greatest number’ (Jeremy Bentham). They held that social well-being is maximised by increasing the personal happiness of all of society’s members. The Utilitarians believed that pleasure and pain could be measured and quantified. They held that *happiness* – the satisfaction of desires – is the essence of value. *Utility* – an abstract

intellectual construct – is its measure and provides a unifying *numéraire* (to sum across individuals).

The Utilitarians thus advocated an *objective, results-oriented* approach at social reform that was grounded in the *subjective* principles of individual *preferences*. Their movement led and/or contributed to many significant reforms; for example, the Factory Acts that were passed in the early nineteenth century to restrict the number of working hours and to abolish child labour practices. These reforms were viewed as an ongoing perfection of the economy delineated by classical economic principles. The Utilitarians were confident in their ability to adjust society rationally so that objective utility for all could be maximised. Based on this certainty Mill would exclaim that ‘Happily there is nothing in the laws of value which remains for the present or any future writer to clear up; the theory of the subject is complete’. [*Principles* 1848:515] The later emergence of alternative theories of value disproves his overconfident assessment.

Subjectivism/Relativism

In contrast to Marx’s objective theory of value (based in commodities) and the definitions of value advanced by other classical economists (based in production), a group of writers emerged that held that value is properly grounded in the subjective reality of the mind. They upheld the efficiency of existing capitalist systems and capitalist social relationships, in particular those based on market exchange rather than production. These writers form the Subjectivist/Relativist school of value; they assert that value is based completely on the *perceptions* of the individual.

Members of society should be viewed as independent and self-contained economic actors. Each individual has his or her respective *preferences* which should be taken as given and independent of all other people’s preferences. For example, Ferdinando Galiani (1728) wrote one of the first subjective treatments of value based on the concept of utility – *Della Moneta* (1751). He contributed two new ideas to the utility-based theory of value:

First, he argued that value is not an intrinsic quality of goods, as most of the theorists of the cost of production tended to believe, but is a quality deriving from the choices of economic subjects. Second, he established that it is necessary to start from individuals in order to define these choices. Both utility and scarcity depend on the needs of individuals. Thus, the same good has different utilities for an individual according to the

quantity of it that he has already consumed. The more of the good consumed, the lower the utility will be, up to the point of becoming zero. The concept was only sketched, but it was already a theory of diminishing 'final' utility. Screpanti (1993:48)

William Foster Lloyd (1794-1852) echoed Galiani's view of utility as a subjective measure. He describes value as 'undoubtedly signif[ying] a feeling of the mind, which shows itself always at the margin of separation between satisfied and unsatisfied wants', and explained that 'an increase in quantity will at length exhaust, or satisfy to the utmost, the demand for any specific object of desire'.

[Lloyd (1834), *A Lecture on the Notion of Value* (London: pp. 9, 16)]

Lichtenstein (1983:53) observes that the subjectivist interpretation of value ultimately implied two important points about economic actors:

First, when studying society as a whole, the observer is inclined to conclude that all social processes, institutions, and characteristics can be explained by examining individual behavior. In other words, the "laws" which regulate society can be deduced from the laws which govern an individual's behavior. The former is simply the sum of the latter. ... The second aspect of an individualistic view of human nature is *laissez-faire individualism*. This is an ethical proposition which holds that the interests and responsibilities of individuals are morally paramount. Each person, according to this view, should be held responsible for his or her actions and for his or her successes or failures. Any attempt by an external governing force to diminish these responsibilities, or to alter the consequences of individual actions, is unethical. Lichtenstein (1983:53)

Accordingly the subjectivist / relativist school of value viewed unfettered commerce as good.

The Marginal Revolution

Between 1870 and 1890, an intellectual revolution occurred in economics.

Lichtenstein notes that 'the scope had changed from one which stressed the importance of capital accumulation, economic growth, and the role played by social classes, to one which stresses the allocation of scarce resources by individuals' Lichtenstein (1983:48). This revolution was the result of the near simultaneous publication of three books: *The Theory of Political Economy* (1871) by William Stanley Jevons (1835-82), the *Grundsätze der Volkswirtschaftslehre* (*Fundamental Principles of Political Economy*) (1871) by Carl Menger (1840-1921), and the *Éléments d'économie politique pure* (*Elements of Pure Political Economy*) (volume I in 1874 and volume II in 1877) by Léon Walras (1834-1910). These three authors were the principal advocates of what is now called the *Marginal Revolution*.

What is so new in the works of 1870s, and of such fundamental importance as to be considered that which 'constitutes the very foundation of the whole edifice of economics' (Walras, 1900, p. 44) is the condition of proportionality between prices and marginal utilities for each consumer after exchange, i.e. the condition of maximum utility. This condition (which implies the hypothesis of substitution between goods for each consumer when prices vary) gave an analytical basis to downward sloping demand curves for goods, and, with them, to the idea that, given the quantities produced, relative prices are exclusively determined by marginal utilities, independently of the costs of production of commodities. The New Palgrave Dictionary of Economics (1998: Vol. III, p. 320)

In terms of its contribution to the theory of value, marginalist economics explained for the first time the long-sought relationship between *use value* (i.e. *utility*) and *exchange value* (i.e. *price*). They assumed that, in a competitive economy in the long-run, prices tend to equal costs. A detailed description of production costs was therefore unnecessary – one need look no further than the market for an explanation of a good's cost.

The Marginalists thus did not support previous production-based theories of value such as those found in Classical and Marxist economics. Those economists who opposed marginalist theory because of the critical role they assigned to production costs, however, did not make their case well. 'This was because the notion of cost itself [had become] ... "an appalling jumble of ideas" [Whitaker 1904, p. 10]' The New Palgrave Dictionary of Economics (1998: Volume III, p. 320).

Neo-classical Economics

The neo-classicists grounded value in utility. Individuals were viewed as economic agents who derived utility from the consumption of goods. Individuals were assumed to act on the basis of maximising their utility.

The term 'neoclassical' was first used by Veblen in order to characterise Marshall and Marshallian economics. Veblen did not appeal to any similarity in theoretical structure between the economics of Marshall and classical economics in order to defend this novel designation. Rather he perceived Marshall's Cambridge school to have a continuity with classical economics on the alleged basis of a common utilitarian approach and the common assumption of a hedonistic psychology. Derivative of Veblen's usage, this meaning of the term subsequently gained currency The New Palgrave Dictionary of Economics (1998: Volume III, p. 625)

In his *Principles*, Marshall (1880) unified two concepts of value – production cost versus market price – which had divided the marginalist and classical schools. 'Marshall [unified] the [cost versus price] relationship by simultaneously determining [using] the same principle [that] prices [are] determined by the

principle of decreasing marginal utility, and the value of the component parts of the cost of production [are] determined by the analogous principle of decreasing marginal productivity (which had been discovered later than marginal utility and had certainly been prompted by it....)' The New Palgrave Dictionary of Economics (1998: Volume III, p. 320)

The term “neoclassical” was subsequently extended by Stigler to marginalist theory in general. Today it is commonly associated with the Chicago School of Economics¹ and other free-market based schools of thought. These schools became prominent in the 1980s with the elections of Margaret Thatcher in the UK and Ronald Reagan in the US, the adoption of deregulation and *laissez-faire* economic policies in Western economies, and the greater acceptance that ‘the markets decide best what is right’. Value became increasingly associated with *market value*².

Post-Keynesianism/Neo-Ricardianism

The efficiency of markets, however, was earlier questioned by many economists after the Great Depression. *Laissez-faire* market philosophies were critiqued based upon Keynes’s assertion that government spending formed an essential part of economic policy and that it ensured the vitality of the capitalist economic system. Post-Keynesian theory of value and price argued that different economies exhibited different social, institutional and technological characteristics which needed adequate consideration to establish proper economic policy. This contrasted with neoclassical theory which remained focussed on atomistic rational economic agents defined in isolation from these same characteristics. Other economists attempted to reconcile Ricardo’s labour theory of value with progressive economic policy. These economists, the neo-Ricardians, would fracture socialist thinking by arguing that value as an abstract concept could exist outside a capitalist order (thereby violating Marx’s distinction between *abstract value* and *tangible value*).

¹ See Section 3.1 for discussion of the Chicago School of Economics.

² See also Section 3.1 for discussion of *Behavioural Finance and Economics* which contests the *Chicago School of Economics*’ underlying assumption of perfectly rational behaviour on the part of consumers. Behavioural economists document instances where observed prices deviate from theoretical prices and thereby question the predictive accuracy of neoclassical economic price theory.

Figure 5E: Focus of alternative theories of value

Category	Preference-based ¹	Exchange-based ²	Production-based ³
	<i>Realm of utility</i>	<i>Realm of price</i>	<i>Realm of cost</i>
Labels	<ul style="list-style-type: none"> •Worth, use value •Benefits⁴, function •Perceptions⁵, esteem, regard •Satisfaction, happiness 	<ul style="list-style-type: none"> •Market price •Exchange price •Purchase price 	<ul style="list-style-type: none"> •Production / labour costs •Direct / indirect expenses •Total Cost of Ownership⁶
School of value			
Scholasticism	No	Primary	No
Mercantilism	No	Primary	No
Physiocracy	No	No	Primary
Classical economics	No	Secondary	Primary
Marxian economics	No	Not applicable	Primary
Utilitarianism	Preliminary	(See classical)	(See classical)
Subjectivism/Relativism	Primary	No	No
Marginal Revolution	Primary	Secondary	No
Neo-classical Economics	Primary	Primary	Assumed
Post-Keynesianism	Assumed	Primary	Primary
Neo-Ricardianism			

Notes: ¹Chief concern is the buyer's subjective reaction

²Chief concern is the clearance of a transaction between buyer and seller

³Chief concern is the accumulation of cost within the product or service provided by the seller

⁴See Section 5.2 and 6.1.

⁵See Section 6.3 and 6.4.

⁶See Section 3.1

Summary

This author categorizes in Figure 5E the conceptualization of value of each of the preceding ten schools. The first category (column) corresponds to preference-based definitions of value; the second, to exchange-based viewpoints; and the third, to production-based definitions. Further to this author's discussion of incomplete definitions of value, it is important to note that the first category conceptualizes value as an adjective whereas the third category conceptualizes value as a noun. The key observation is that alternative economic schools of value theory do not equally address value as an adjective and/or as a noun³.

There is therefore no single economic theory of value that provides a complete definition of value (as a verb, adjective and noun). The proper measurement of value is debated not only across schools but sometimes even within the same school. For example, there are at least three alternative definitions of value in classical economics reflecting different combinations of costs of materials, capital, labour, profit, etc. Even if one were to agree on which cost components should be added, Wilson and Jantrania (1997:294) identify at least seven different ways to account for financial value itself (i.e. value as conceptualized on a firm's financial statements). See Table 5B. Figure 5E and Table 5B demonstrate the absence of a standard conceptual framework for value in both the economics and finance literatures. Figure 5E and Table 5B also suggest that the increasingly popular maxims to 'adopt a total cost' perspective⁴ or to 'maximise shareholder value'⁵ will be difficult to implement without *a priori* and considerable accounting knowledge by PSM managers⁶.

³ No economic school of value theory addresses value as a verb as outlined by this author in Section 3.3.

⁴ See Section 3.1 where this author reviews Ellram (1993)'s 'Total Cost of Ownership' approach.

⁵ See also Section 3.1 where this author discusses Demsetz (1983)'s normative framework for maximizing the market value of a firm, and Section 4.4 where he examines *neoclassical theory of the firm*.

⁶ Or at least knowledge of the actual accounting practices used to guide all PSM decisions and transactions. Whenever the firm's managers do not have such knowledge, the firm's financial controls must ensure that all managers operate according to accepted intra- and inter-firm accounting practices. Otherwise one must assume that managers *intuitively and correctly* use the particular definition for financial value which is (a) adopted by counter-parties in a transaction and (b) appropriate to the transaction, lest different interpretations of financial value ensue. The recent instances of deliberate misrepresentation of financial value by executives / managers in the U.S. (e.g. Enron, WorldComm, Xerox, Qwest Communications, etc.) contradict this assumption. These cases suggest that assuming "acceptable accounting standards" for value by firms operating in a global economy with trans-national supply practices (or at least those with supply relationships with U.S. corporations) is not accurate. In other words, firms may interpret financial value differently even when an objective and inviolate standard for accounting value is said to exist. See Turner, Graham. "Illusory profits cloud USA Inc". *BBC News Online*. 30 June 2002.

Table 5B: Types of value in accounting and finance Extracted from: Wilson and Jantrania (1997:294-295)	
Recorded value	This is based on the accounting principle that the values of physical and intangible goods should be stated in terms of the original cost of the items. Hence recorded value is the amount a customer pays for a good in the transaction.
Market value	In this concept, the value is viewed from the standpoint of the buyer and the seller. Market value is a fair approximation of the place of a good or service on the value scale of the business community or society in general. It is dependent upon the nature of exchange mechanisms and the conditions upon which buyer and seller meet. Market value as an indicator of value is most reliable when the good in question has a broad market, i.e. when demand is frequent and supply adequate and stable.
Replacement value	This represents an attempt to determine, for a particular asset, the current market value of an asset that could take its place, in order to establish a fairer value for the old asset than its original cost less any accumulated depreciation.
Assessed value	Assessments of value are made for real property for purposes of taxation.
Appraised value	Appraisals of value are made in order to determine a "fair value" of the good in question usually to establish a selling price where no ready-made market value of the tangible asset exists.
Earnings potential	Value, according to this concept, is measured by the total expected earnings (economic benefits) that will accrue to a long-lived asset over its useful life.
Liquidation value	Liquidation value is related to market value, the difference being largely one of the circumstances under which an exchange takes place.

5.2 Total Quality Management, continuous improvement and the value-add

The importance of quality to business has long been recognized and explored in the literature (Table 5C). Brown, Lamming et al. (2000:197) note that the financial significance of quality was discussed as early as the 1950s:

In 1951 Juran published his Quality Control Handbook in which he highlighted not only the principles of quality control but also the potential economic benefits of a more thorough approach to preventing defects and managing quality on a company-wide basis (Juran 1951). He suggested that failure costs were often avoidable, and the economic payoff from preventive measures to reduce or eliminate failures could be between \$500 and \$1000 per operator – what he referred to as the '*gold in the mine*'. [emphasis added] Brown, Lamming et al. (2000:197)

As expected, estimates of poor quality's cost to an organization have varied widely depending upon the metric used. For example, Saunders (1997:190) notes that 'Studies have suggested that the cost of quality may be as high as 25 per cent of *total costs*!' Brown, Lamming et al. (2000:197) note that Crosby (1979) calculated the cost of quality as 40 per cent of *turnover*.

One of the noted writers on quality of recent years is Philip Crosby, who began working on quality issues within the giant ITT Corporation. He tried to put some numbers to the real cost of quality and realized to his – and the company's – horror that these could account for as much as 40 percent of sales revenue. Crosby (1979) in Brown, Lamming et al. (2000:192-93)

What is clear from these authors is that quality plays an important role in value management.

Table 5C: The Quality Gurus
Extracted and derived from the following sources:
Lysons (1996:156), Saunders (1997:184-189) and Brown, Lamming et al. (2000:196-200)

Name	Source	Important Principles
Walter Shewart	The Economic Control of Manufactured Product (1931)	Documents methods for monitoring and measuring quality; Marks the emergence of statistical quality control as replacement for simple inspection; reinforced the idea of quality needing specialists
W. Edwards Deming	Lectures to Japanese Union of Scientists and Engineers (1948-); <i>Quality, Productivity and Competitive Position</i> (1982); <i>Out of the Crisis</i> (1986)	Advances fourteen points to quality. These include: (4) 'End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for any one item, on a long-run relationship of loyalty and trust'. Asserts firms should move away from blaming people for poor quality; argues that the main causes of quality problems are to be found in faulty processes (which are ultimately the responsibility of management); views control of processes as being vital.
Joseph Juran	<i>Quality Control Handbook</i> (1951)	Defines quality as 'fitness for use' which can be broken down into quality of design, quality of conformance, availability and field service; asserts that companies must reduce the cost of quality; posits that quality should be aimed at controlling (a) sporadic problems and avoidable costs (b) unavoidable costs. The latter requires the introduction of a new culture intended to change attitudes and increase company-wide knowledge.
Armand Feigenbaum	'Total quality control' Harvard Business Review (1956)	Provides the underlying principle of the total quality view: control must start with identification of customer quality requirements and end only when the product has been placed in the hands of a customer who remains satisfied; employs Total Quality Control to guide the co-ordinated actions of people, machines and information to achieve this goal; asserts that quality is everybody's job.
Philip Crosby	<i>Quality is Free</i> (1979)	Promotes five absolutes of quality management: (1) 'quality means conformance to requirements – not elegance'; (2) 'There is no such thing as a quality problem although there may be an engineering or machine problem'; (3) 'It is always cheaper to do the job right the first time'; (4) 'The only performance indicator is the cost of quality' (5) 'The only performance standard is zero defects'. (ii) The 14 step quality improvement programme.
Kaoru Ishikawa	<i>What is Total Quality? The Japanese Way</i> (1985)	Introduces the concept of Quality Control Circles; originates fishbone or Ishikawa diagrams now used world-wide in continuous improvements to represent cause-effect analysis; argues that 90-95% of quality problems can be solved by simple statistical techniques not requiring specialist knowledge.
Genichi Taguchi	<i>Introduction to Quality Engineering</i> (1986)	(i) Defines the quality of a product as the loss imparted by the product to the society from the time the product is shipped. The loss may include customer complaints, added warranty costs, damage to company reputation, loss of market lead, etc. (ii) Uses statistical techniques additional to Statistical Process Control (SPC) to enable engineers / designers to identify those variables which, if uncontrolled, can effect product manufacture and performance.

There is unfortunately no consensus definition of quality in the literature. Lysons (1996:151-152) identifies at least three broad definitions of quality: “ability to satisfy given needs”, “conformity to requirements”, and “fitness for use”.

- (1) ISO 8402 defines quality as: ‘The totality of features and characteristics of a product that bears on the ability to satisfy stated or implied needs’. In this definition:
 - ‘Features and characteristics of a product’ implies the ability to identify what quality aspects can be measured, or controlled, or constitute and Acceptable Quality Level of AQL.
 - ‘Ability to satisfy given needs’ relates to the value of the product or service to the customer including economic value as well as safety, reliability, maintainability, and other relevant features.
- (2) Crosby [*Quality is Free*. 1980:15] defines quality as ‘conformity to requirements, not goodness’. He also stresses that the definition of quality can never make any sense unless it is based exactly on what the customer wants, i.e. a product is a quality product only when it conforms to the customer’s requirements.
- (3) Juran [*Quality Control Handbook*. 3rd ed. 1974:22] defines quality as ‘fitness for use’. This definition implies quality of design, quality of conformance, availability, and adequate field service. Lysons (1996:151-52)

These definitions do not reflect a common “vantage point”. They refer to product attributes/characteristics (ISO8402), to pre-determined production specifications (Crosby), or to ultimate effectiveness (Juran). Garvin (1984) recognises these differences of type, noting that there are five “approaches” to quality:

- The transcendent approach: quality is absolute and universally recognizable. This concept is loosely related to a comparison of product attributes and characteristics.
- The product-based approach: quality is a precise and measurable variable. In this approach differences in quality reflect differences in the quantity of some product characteristic.
- The use-based approach: quality is defined in terms of fitness for use, or how well the product fulfils its intended functions.
- The manufacturing-based approach: quality is ‘conformance to specification’, i.e. targets and tolerances determined by product designers.
- The value-based approach: quality is defined in terms of costs and prices. Here, a quality product is one that provides performance at an acceptable price or conformance at an acceptable cost. Garvin (1984:26)

Anderson, Thomson et al. (2000) claim that there are two types of quality – a traditional definition (‘more is better’) and a total quality definition (‘consistently meeting defined objectives’) – and assert that common business usage is reverting back to the traditional definition. Saunders (1997) describes the differences of type using a quality evolutionary ladder (see Figure 5F). Brown, Lamming et al. (2000) describe different types of quality using a progression that closely mirrors Saunders’ evolutionary stages (see Table 5D).

Yet even later evolutionary stages have conceptual limitations (see Table 5E). Garvin (1984) notes that they often overlap and sometimes even conflict. Baily, Farmer et al. (1998) concur with this assessment⁷.

Figure 5F: Expansion of the concept of quality
Source: Saunders (1997:188)

Figure removed

Quality is most commonly – albeit perhaps not consciously – used as a noun, most likely due to its origins in manufacturing and associated production-oriented definitions of value. See Figure 5E. Porter (1985) explicitly describes economists' role in advancing production-based definitions of value.

Economists have characterised the firm as having a production function that defines how inputs are converted into outputs. The value chain is a theory of the firm that views the firm as being a collection of discrete but related production functions, if production functions are defined as activities. The value chain formulation focuses on how these activities create value and what determines their cost Porter (1985:39)

⁷ Unfortunately, they resolve the problem by selecting one definition ("fitness for purpose"/"suitability") over others without providing any philosophical rationale or justification.

Table 5D: The Meaning of quality Extracted from Saunders (1997:184-187)	
Approach	Limitations
Quality as 'conformance to specifications'	Does not permit questions to be asked with regard to the correctness or appropriateness of the specification
Quality as a feature of 'excellence'	Implies the possession of features of excellence in a product that can be used as a standard of comparison with other apparently inferior products. In this sense it is used in a somewhat vague and subjective way [which] does not lend itself easily to the development of operational definitions for practical purposes.
Quality as 'fitness for purpose' or 'fitness for use'	Raises the question of how best to describe or specify requirements. Should specifications concentrate on the characteristics of the composition and dimensions of the product and its constituent parts or should they be based upon descriptions of performance features and operating conditions in which the product is to be used? ... The problem with the definition of 'fitness for purpose' or 'fitness for use' is that it does not clearly address the problem of determining the characteristics of purpose or use.
Quality as 'conformance to customer requirements'	Posits that different groups of customers may be satisfied by products of different grades or levels of performance. Assumes that customers have a clear view of their requirements and that they can discriminate carefully between different offers.
Total quality	Includes all aspects of the offering including service and delivery times

Table 5E: Stages of development in quality and related activities Brown (1996) in Brown, Lamming et al. (2000:205)	
Stage of development	Activities
Inspection	Salvaging, sorting, grading, and corrective actions
Quality control	Quality manuals; product testing; basic quality planning; including statistics
Quality assurance	Third party approvals; advanced planning; systems audits; SPC
Company-wide QC	Quality measured in all areas of the firm
TQM	Continuous improvement; involvement of suppliers and customers; employee involvement and team

Porter's focus on *inputs* and *outputs* is characteristic of the quality movement's predominant conceptualization of value as a noun. Hines, Lamming et al. (2000) assert that the basic philosophy of the Toyota Production System (TPS), 'a holistic approach to quality', is the removal of *waste* (noun) to augment the *value-add* (noun) process.

The basic philosophy of TPS is to eliminate all sources of 'waste' in the factory and its conversion processes as a means of continuously improving the 'value added' achieved. TPS is therefore a holistic approach to the management of quality and productivity in its broadest sense.... Hines, Lamming et al. (2000:164)

Lamming (1993:32) states that Krafcik and Graves labeled the TPS approach to operations "lean production" since it uses fewer *resources* (noun):

The term 'lean' was applied to this system [lean production] by the IMVP [International Motor Vehicle Programme] in 1990 following the observation and measurements undertaken during the research programme (1986-1990). It was applied because the system Toyota and Ohno invented apparently uses significantly less of every resource than mass production or craft production: it operates with a bare minimum of everything: labour, materials, organizational complexity, space, etc. – much less than is required by mass production. It originated from a discussion between two researchers, John Krafcik and Andrew Graves. Graves had extensive experience in motor racing where the practice of reducing the specification of every part to a bare minimum – sometimes until it broke in operation, requiring a small increase in specification – was called 'lean'. Comparison with the concept of removing bodily fat to reach fighting weight is appropriate. Initial signs are that the term 'lean' has been well accepted generally in the industry and will spread to other manufacturing and even non-manufacturing sectors, rather in the same way that 'mass' did. Lamming (1993:32)

Lamming (1993:32) also uses "weight" (noun) as a metaphor for value; he compares *non-value* (i.e. waste) to a fighter's accumulation of fat above "fighting weight".

Womack and Jones (1996) seem to compare value to *water* (noun) when describing the *value* that accumulates and flows across a value chain (which they label the *value stream*)⁸. Echoing Womack and Jones (1996), Baily, Farmer et al. (1998) envisage the supply chain as a system along which value is added to / waste⁹ subtracted from an accounting accumulator (noun). See Figure 5G.

Value accumulates as materials flow through operations, but diminishes when non-productive costs ... are arising. The less waste there is within organisations the more steeply value rises" Baily, Farmer et al. (1998:18).

Whilst they do not explicitly define value, they do monetize the unlabelled value accumulator.

Womack and Jones (1996:10) use value as a noun as reflected in their five principles of lean thinking: 'Precisely specify *value* [noun] by specific product, identify the *value stream* for each product, make *value* [noun] *flow* without interruptions, let the customer pull *value* [noun] from the producer, and pursue perfection [absence of *muda*: noun]'. Lean thinking categorises all firm activities as Value-Adding (VA), Non-Value-Adding (NVA), or Necessary but Non-Value-Adding (NNVA). To do so requires understanding value's definition as an

⁸ The value stream will be discussed in detail in section 5.3.

⁹ The Toyota Production System describes seven forms of waste: overproduction, waiting, transportation, inappropriate processing, unnecessary inventory, unnecessary motion and defects.

Figure 5G: Value accumulation on a simplified “value system”

Source: Bailey, Farmer et al. (1998:18)

Figure removed

adjective. Nearly a half-century ago Drucker (1955) stressed the importance of value as defined by the customer (i.e., value as an adjective).

Markets are not created by God, nature or economic forces, but by businessmen. The *want* they satisfy may have been *felt* by the customer before he was offered the means of satisfying it. It may indeed, like the *want* of food in a famine, have dominated the customer's life and filled all his waking moments. But it was a *theoretical want* before; only when the action of business men makes it an *effective demand* is there a customer, a market. It may have been an *unfelt want*. There may have been no want at all until business action created it – by advertising, by salesmanship, or by inventing something new. ... It is the customer who determines what a business is. For it is the customer, and he alone, who through *being willing to pay* for a good or for a service, converts economic resources into wealth, things into goods. What the business thinks it produces is not of first importance – especially not to the future of the business and to its success. *What the customer thinks he is buying, what he considers "value", is decisive* – it determines what a business is, what it produces and whether it will prosper. [emphasis added] Drucker (1955:52-53)

According to Drucker (1955) the customer buys what he or she considers value; the customer's willingness to purchase in turn drives demand for what the firm produces.

Writers in the Lean School also start with the understanding that 'value can only be defined by the ultimate customer' Womack and Jones (1996:16). This implies a preference-based definition of value grounded in utility¹⁰ which conceptualises value as an adjective and not as a noun. The customer's perceptions of the consequences of the event / benefits of the resulting experience¹¹ (value as an adjective) comprises what this author labels customer value¹² which differs from the features / attributes of the value offering (value as a noun).

Whilst quality plays an *integral* role in the customer's perceptions of the value proposition¹³ – 'Customers judge the *value* of a product or service on the basis of some combination of *quality* and price' [emphasis added] Treacy and Wiersema (1993:84) – Lanning (1998) claims that when firms describe benefits, it is often too vague to be meaningful.

¹⁰ Value is defined as an adjective in the economics literature using the terms *utility* and *preference* (see Figure 5E).

¹¹ Lanning (1998) defines value as an adjective using the term *resulting experience*: 'A *resulting experience* includes one or a series of related *physical or mental events* that happen in the life of the customer, whether a business or consumer customer. These events happen at least in part due to the actions of a business organization. They ultimately have an *end-result consequence for the customer*, in comparison to some alternate experience the customer perceives. An experience is thus superior, equal or inferior to that alternate experience. This difference versus the alternative has some value to the customer'. [emphasis added] Lanning (1998:42)

¹² Customer value will be discussed in detail in Chapter Six.

¹³ Lanning (1998:3) uses the term *value proposition* – 'What precise benefit or benefits at what price will be offered to what group, at what cost?' – to describe customer-perceived value.

To construct a useful value proposition, managers must articulate resulting experiences that can be understood relative to the customer's real alternatives, and then deliberately delivered and measured. A great deal of what passes as benefits or needs, however, is nebulous, offends no one, is never wrong per se, and not surprisingly adds virtually nothing of true meaning. Three of the most classic phrases to which organizations are urged by popular management theory to swear allegiance, as if a strategy panacea, fit into this category: quality, service and customer satisfaction. In this same category are many others nearly as popular, such as: performance (or price/performance), reliability, convenience, relationships, trust, one-stop shopping, ease of use, easy to do business with, comfort and appearance. Lanning (1998:50)

Even more indicting Lanning (1998) contends that common usage of the term “quality” often fails to distinguish between the conceptualization of value as an adjective versus a noun:

Many descriptors commonly presented as customer needs and benefits are really only a description of the organizations' product or what the organization does. First mention must be given to 'quality' and 'customer service.' These terms are often considered crystal clear when in fact they are amorphous and vague. Even worse, they connote vague characteristics of the product and the organization more often than those of experiences. Quality often describes how well-made a product or service is, while customer service most often refers to a process the business performs. Lanning (1998:49)

For example, Womack and Jones (1996:16) assert value “*is only meaningful when expressed in terms of a specific product (a good or service, and often both at once) which meets the customer's needs at a specific price at a specific time*” [emphasis added] Womack and Jones (1996:16). In contrast, Anderson, Thomson et al. (2000:308) define value in business markets as ‘the worth in monetary terms of the economic, technical, service, and social *benefits* a customer firm receives in exchange for the price it pays for a *product offering*, taking into consideration competing supplier's offering and prices’ [emphasis added]. Anderson, Thomson et al. (2000), however, quickly replace the term “benefits” with the term “product functionality” thereby restricting their usage of the concept of value to a noun.

Product functionality is a basic concept of value analysis/value engineering (VA/VE) one of the earliest¹⁴ quality tools developed for assessing value. For some VA/VE practitioners, product functionality measures a customer's preferences, experiences or utility (i.e., value as an adjective)¹⁵. For other VA/VE practitioners, product functionality strictly measures a product's features, its

¹⁴ VA/VE is commonly attributed to Lawrence Miles who created the concept at General Electric in the 1940s.

¹⁵ Reuter (1968:55) provides a concise description of the objectives of VA/VE: ‘Nobody pays for a product—what is paid for is satisfaction. Therefore, the primary concern in determining a product's value is to find out what the product does for the purchaser, i.e. what is the value of the basic purpose or function of the item? This includes the concept of usefulness in any way that makes the product desirable to a customer. Customers are not interested in the manufacturing cost of an item. They are primarily concerned with obtaining a product with the appropriate use and esteem features at the lowest possible price’.

attributes and its capabilities¹⁶ (i.e., value as a noun). Since the firm must effectively translate customer preferences into specific products¹⁷, a value-adding activity (VA) may be viewed as any activity that translates value as an adjective to value as a noun.

This does not mean that all activities in a firm's value chain are "value translators" (between value as an adjective and as a noun), that they are all "value-adding", or that they all represent value's usage as a verb. Value chain activities are value translators when they convert a customer's preferences (value as an adjective) into offerings (value as a noun)¹⁸. They are "value-adding" only if they create customer experiences that the customer perceives to be valuable¹⁹. Such activities comprise the value stream²⁰. All other constitute waste (*muda*) i.e. NVA and NNVA activities.

Most firms' value chains provide very poor / ineffective value translation processes. For example, Hines, Lamming et al. (2000:61) reference a benchmark

¹⁶ For example, Budnick (1964:184) describes VA/VE as 'a technique that yields value improvement by the determination of the essential function of an item and the accomplishment of this function at the lowest cost without degradation in quality'. There is no mention of customer preferences, experiences or utility (value as an adjective).

¹⁷ Normann and Ramirez (1994) use the term *value offering* in place of specific product. See Section 4.6 for review of Normann and Ramirez (1994) and definition of *value offering*.

¹⁸ There are interesting parallels and conceptual nuances between value activities, exchange prices as outlined in Figure 5E, and hard-systems / soft-systems thinking as described in Section 4.2. Just as value *stream* activities are the translators assuring that whatever value (as a noun) that is added in the production function is seen as value (as an adjective) in the eyes of the ultimate customer, so exchange prices are the link between utility-based (value as an adjective) and production-based (value as a noun) economic definitions of value. It does **not** logically follow that exchange prices or value activities are therefore equivalent to value (as a verb), just as hard-systems thinking is not equivalent to soft-systems thinking. In Section 4.2 hard-systems thinking was compared to a thermostat which maintains a pre-established temperature; the thermostat does not dynamically reset the equilibrium temperature (unless it is so programmed in advance). Exchange prices are a market-clearing mechanism for utility and cost; the act of market-clearing is distinct from the judgmental frameworks that lead to customer preferences (value as an adjective) and from the production functions that lead to product costs (value as a noun). There is considerable disagreement in the economics literature, however, about the *influence* of exchange prices on customer preferences and accrued production-costs. Building on Lanning (1998) and Hines, Lamming et al. (2000:13)—discussed in the next two footnotes— a "value-adding" activity can be therefore only two things. It may be a value translator, the special activity that links value as a noun (the "value" that is added in the production function) to value as an adjective ("value" as seen in the eyes of the ultimate customer). Or it may represent value's usage as a verb: resetting firm goals and objectives thereby indicating the presence of "double-loop" learning and "second order" change. If an activity is neither of these, it is either necessary but non-value adding (NNVA) or non-value adding (NVA) and cannot be part of the value stream (further to Womack and Jones (1996)'s definition). Note that under this definition, a value-adding activity is more than merely augmenting production cost (value as a noun).

¹⁹ Lanning (1998:75) notes 'The term value has a long history in economic discussion. It is so burdened with baggage that its meaning is not highly precise.... One of the more unfortunate pieces of baggage is the term value added. Value-added refers to the materials, features, services or other resources [this author's definition of value as a noun] added to a product at any given stage of production and distribution. Raw material enters the manufacturing system, and at each stage of production something new is added, thus adding value until finally a finished product results. Those who buy it may add further to it before reselling it, perhaps as part of a complex product or service'. Note that this author restricts the definition of value-add to two cases (see above footnote). See also footnote in Chapter One where Bierck (1999) calls "value-add" a meaningless phrase.

²⁰ This author adopts Hines, Lamming et al. (2000:13)'s distinction between *value chain* versus *value stream* activities: 'The difference between the traditional supply chain or value chain and the value stream is that the former includes the complete activities of all the companies involved, whereas the latter refers only to the specific parts of the firm that actually add value to the product or service under consideration. ... These value-adding processes make the final product or service more valuable to the end-consumer than it would have been otherwise'.

‘widely quoted, commonly agreed but of no fixed origin’ that 95% of the activities within a value chain do not add value (in the eyes of the end customer)²¹. Hines, Lamming et al. (2000) advance the “Value Stream Analysis Tool” (VALSAT) Matrix (Figure 5H), a refinement of the “House of Quality” new product development framework (Figure 5I) described by Hauser and Clausing (1988), to guide firms in this translation.

Whilst value stream activities are value-adding, they do not reflect value’s usage as a verb²². Recall Kaplan and Norton (2000)’s “double-loop” strategic process model which differentiates between lower loop (management control) and upper loop (strategic learning) activities; these loops corresponded to “hard systems” (lower) and “soft systems” (upper) thinking²³. Value as a verb represents the reconfiguration (double-loop) of the firm’s value-adding activities in order to improve the translation (single-loop) of customer value (adjective) into value offerings (noun). Value as a verb is discussed by most of the value management systems outlined in Figure 4Y and reviewed in Section 4.6. For example, Normann and Ramírez (1994) describe value reconfiguration (value as a verb) as a “meta-competence” and note that it is of a higher-order than other firm activities:

Reconfiguration is a sort of meta-competence.... By ‘meta-competence’ we mean a competence of a higher logical typing, that is, which encompasses the core competencies of the lower logical type that make up a company’s know-how, know-what and know-who. The ‘meta-competence’ is a ‘know why’; it entails the business philosophy. This may be known by competitors, but it is very difficult indeed to copy. It relates to what Selznick (1957) called ‘distinctive competence’, which is the systemic competence that integrates other competencies into a coherent business practice. Normann and Ramírez (1994:78)

²¹ In other words, large value gaps exist between the firm’s conceptualization of value (as a noun) versus the customer’s conceptualization of value (as an adjective). See Sections 6.4 and 6.5 for a discussion of value gaps.

²² In Section 4.3 this author noted that frequently strategic authors adopt an incomplete definition of value by failing to define the strategic learning process, i.e. how a firm questions the increasingly “sacrosanct” assumptions and values that lie at the higher levels of the hierarchy [of objectives]. This author then defined value as a verb as the process used by two or more individuals (a) to understand the underlying variables (e.g., vision and mission) governing their actions; (b) to identify matches-mismatches between the individuals’ expectations of those variables that enable/prevent joint action; and (c) to adjust expectations so that a match is found (thereby enabling action).

²³ See detailed discussion in Section 4.2.

Figure 5H: The Value Stream Analysis Tool (VALSAT) Matrix
Source: Hines, Lamming et al. (2000:75)

Figure removed

Figure 5l: The House of Quality
Source: Hauser and Clausing (1988) in Gale (1994:280)

Figure removed

Kim and Maubourgne (1997) reference value as a verb when characterising value innovators as firms that use a different management “lens” to continuously question (value as a verb) current practices.

Many companies view business opportunities through the lens of their existing assets and capabilities. They ask, ‘Given what we have, what is the best we can do?’ In contrast, value innovators ask, ‘What if we start anew?’ ... This is not to say that value innovators never leverage their existing assets and capabilities. They often do. But, more important, they assess business opportunities without being biased or constrained by where they are at a given moment. Kim and Maubourgne (1997:107)

Womack, Jones et al. (1990:62) illustrate value as a verb when describing Toyota’s pioneering development of its famous just-in-time or *kanban* system of supply. By stressing the continuous pursuit of perfection even if that goal is near unattainable²⁴, they include value as a verb in their five lean thinking principles.

Brown, Lamming et al. (2000) identify the continuous pursuit of perfection, i.e. continuous improvement (CI), as one of the four key characteristics of “total quality management”:

1. Top management commitment – both in terms of ‘setting an example’ in their commitment to quality, particularly, in terms of their willingness to invest in training and other important features of TQM.
2. Continuous improvement – Deming, Juran, Crosby and other quality ‘gurus’ may have slight differences in their actual approaches to quality. What becomes a common denominator, though, both for the ‘quality gurus’ and for firms involved in quality, is that quality is a ‘moving target’ and, therefore, a firm must have a strategic commitment always to improve performance.
3. All aspects of the business – the quality drive relates to all personnel within the firm and also outside – all aspects of the supply chain.
4. Long-term commitment – TQM is not a ‘quick fix’ but, ideally, an everlasting approach to managing quality. As each stage is developed – from inspection to TQM – the preceding stage was included as part of the next stage: TQM, therefore, includes company-wide quality control, rather than ignoring it. Brown, Lamming et al. (2000:206)

Brown, Lamming et al. (2000) note that CI entails “second-order, double-loop learning” behaviours which form the basis of this author’s definition of value as a verb. Cox (1998) is the only writer in Figure 4Y who appears to reject continuous improvement and double-loop learning (value as a verb). Cox describes the futility of devising new ways in which to think about the allocation of scarce resources.

First, if we start from first principles *we are unlikely to come up with new ways of organizing the ways in which human beings allocate absolute and relative scarcity.* Human beings have been struggling with the same problems since the dawn of time and *we are unlikely to arrive at a new way of managing this allocative problem.* Second, if

²⁴ ‘We do not know of any group of companies that has as yet created a lean enterprise’ Womack and Jones (1994:94).

there are only a *limited number of ways in which allocative scarcity can be organized* politically, the key question must not be what new ways of organizing are there. The key question out to be, of those which are possible, which is the most appropriate for any desired outcome under the circumstances in which we find ourselves. [emphasis added] Cox (1998:6-7)

Cox (1998)'s views appear to illustrate the "mature frames of reference" which Normann and Ramírez (1994) assert prevent firms from reconfiguring their value chain activities.

It is the views in the minds of business people that are the greatest constraint, and the source of greatest opportunities, in business today. New offering designs and organizational possibilities envisioned through our reconfiguration framework at this level means that there are no 'mature' businesses. There are only 'mature' frames of reference. *The frame is the lens* through which managers see the situation with which they are confronted. The framework helps them to 'read' the situation meaningfully, to see its dangers and opportunities, and thereby to act upon it. [emphasis added] Normann and Ramírez (1994:75)

Cox (1998)'s views also reflect the "lens" of the resource-based school that often prevents firms from becoming value innovators (Kim and Maubourgne (1997)).

Recall that *strategic management* is the set of actions taken by management to gain competitive advantage by increasing the degree of congruence between a firm and its adopted value-based approach to competition²⁵. *Strategic alignment* is the degree of congruence between a firm's strategic management process and its adopted value-based approach to competition²⁶. This author discusses above alternative definitions of value as used in the quality literature. Based on the preceding discussion, this author introduces three new terms. *Strategic transformation is the process of reconfiguring (value as a verb) the value-adding activities within a firm's value stream in order to improve the translation of customer value (value as an adjective) into value offerings (value as a noun). Value management is the process used by a firm to co-ordinate value-adding activities within its value stream(s) in order to increase value alignment. Value alignment is the realization of customer value.*

Value alignment is the ultimate aim of strategic alignment. The reader may rightfully ask, 'How does one identify value alignment?' A firm's success in achieving value alignment is indicated by the flow within its value stream.

²⁵ Strategic management was defined and discussed in Section 3.3.

²⁶ Strategic alignment was defined and discussed in Section 3.4.

5.3 Value alignment: Flow within the value stream

The concept of flow is not new nor is it confined to the Lean School. Conceptual equivalents of flow have been introduced previously in the literature albeit using different labels, the most common of which is *business process redesign* or *re-engineering* (BPR). Davenport and Short (1990) provide one of the earliest descriptions of business process redesign; Hammer (1990), of re-engineering. Their thinking was extended shortly thereafter in two books [Davenport (1993) and Hammer and Champy (1993)] which are frequently referenced as principal BPR sources in the academic literature.

Hammer and Champy (1993:7) define re-engineering as ‘the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed’.²⁷ Three characteristics of radical process redesign are (a) a focus on key business processes rather than functional activities, (b) an emphasis on cross-functional²⁸, continuous workflows; and (c) an alignment of processes to improve service to the end customer. Each of these will be examined briefly.

Davenport (1993:1) begins his seminal work with the assertion that ‘Businesses must be viewed not in terms of functions, divisions, or products, but of key processes’. He traces the origins of process thinking to the quality movement²⁹ and to systems thinking³⁰. He claims that Japanese emphasis on continuous improvement indicates their widespread acceptance of process thinking which in turn influences Japanese versus American [Western] management practices:

Indeed, some Japanese firms, and the quality experts whose precepts they follow, have emphasized process over result. To the quality faithful, if the process is managed, the result takes care of itself. Davenport (1993:312)

²⁷ A detailed discussion of business process re-engineering is beyond the scope of this chapter. The reader is directed to Nissen (1996) for a useful review of the BPR literature.

²⁸ Rich and Hines (1997:83) use the following definition of cross-functional management: ‘A management process designed to encourage and support interdepartmental communication and cooperation throughout a company – as opposed to command and control through narrow departments or divisions. The purpose is to attain such company-wide targets as quality, cost, and delivery of products by optimizing the sharing of work’. Croxton, García-Dastuge et al. (2001:13) note that ‘while many have recognized the benefits of a process approach to managing the business and the supply chain, most are vague about what processes are to be considered, what sub-processes and activities are contained in each process, and how the processes interact with each other and with the traditional functional silos’. The purpose of this section is not to identify exhaustively all the business processes that should be managed cross-functionally. The reader is directed to Croxton, García-Dastuge et al. (2001) for such a framework. Rather the aim of the discussion is to establish that the re-engineering movement supports the concept of uninterrupted value flows.

²⁹ See Section 5.2 for discussion of the quality movement.

³⁰ This author discusses systems thinking in Chapter Four.

In previous sections this author notes that the “process versus results” debate remains unresolved³¹. Davenport (1993:312) highlights the challenge American (Western) firms face in adopting process-based management: ‘In the American business culture – noted for an emphasis on large, exciting change and visible results – a process orientation that shuns results thinking may meet substantial resistance’. Western management practices reinforce functional siloism (Hammer and Champy (1993)) causing functional departments to look internally and vertically versus externally and horizontally (Dimancescu, Hines et al. (1997)) in order to demonstrate their visible results³². Fawcett and Magam (2001) assert that functional thinking ultimately reduces total value within the value chain.

Each functional area targets a different and unique set of benefits. Purchasers emphasize lower “cost of items purchased,” logisticians target “on-time delivery/due-date performance” and production managers identify “reduced order fulfillment lead times” as the most pervasive benefit. Functional managers are interpreting and evaluating supply chain strategies differently. This creates a natural opportunity for organizational friction that may lead to sub-optimal supply chain execution. Fawcett and Magam (2001:95)

To combat vertical thinking, BPR authors recommend adopting explicitly cross-functional or horizontal management practices, the second characteristic. Horizontal business processes require re-organising batch-oriented, functional, and individual activities into continuous, cross-functional, team-based workflows. This fundamental change impacts intra- and inter-firm boundaries³³ and is counter-intuitive. Perhaps its counter-intuitiveness stems from the functionally-oriented, short-term thinking promoted by the Cartesian assumptions underlying scientific thought and Western education (Richmond and Peterson (1996))³⁴. Perhaps the human inclination towards non-continuous, i.e. “batch” thinking is universal.

Taiichi Ohno blamed this batch-and-queue mode of thinking on civilization’s first farmers, who he claimed lost the one-thing-at-a-time wisdom of the hunter as they became obsessed with batches (the once-a-year harvest) and inventories (the grain depository). Or perhaps we’re simply born with batch thinking in our heads, along with

³¹ Cox (1998) asserts that the primary purpose of the firm is to accumulate profits (Section 2.2), Drucker (1955:51) asserts that ‘profit is not explanation, cause or rationale of business behaviour and business decisions, but the test of their validity’ (Section 2.2), whilst Imai (1986) appears to simultaneously to hold both positions (Section 2.4). This author also demonstrated the lack of consensus in the strategic literature over the determinants of firm success. Mintzberg, Ahlstrand et al. (1998) posits ten different schools of strategy each with differing premises concerning the cause(s) of competitive advantage (Section 2.3). Kaplan and Norton (1992) posit multiple firm objectives, but they cannot demonstrate strategic causality for those they recommend as part of the Balanced Scorecard (Section 3.3).

³² See also Section 4.5 where this author discusses the “chasm” that exists between the buy-side (purchasing) and sell-side (marketing) of the firm.

³³ See Section 4.4 for review of *theory of the firm* literature.

³⁴ See Section 4.1 for discussion of systems thinking.

many other 'common sense' illusions—for example, that time is constant rather than relative or that space is straight rather than curved. Womack and Jones (1996:22)

Whatever its source Womack and Jones (1996) claim that cross-functional practices increase value.

But we all need to fight departmentalized, batch thinking because tasks can almost always be accomplished much more efficiently and accurately when the product is worked on continuously from raw material to finished good. In short, things work better when you focus on the product and its needs, rather than the organization or the equipment, so that all the activities needed to design, order, and provide a product occur in continuous flow. Womack and Jones (1996:22)

Rich and Hines (1997) support Womack and Jones (1996), positing cross-functional management as one of the three pillars of strategic alignment³⁵: 'Cross-functional management, is, therefore a structural mechanism which allows managers, drawn from different functions or product related organisational structures, to join forces and *align their efforts on a company-wide scale*' [emphasis added] Rich and Hines (1997:83).

The third characteristic of radical process redesign is a focus on aligning processes to improve service to the end customer. Recall this author's definitions of strategic alignment³⁶. A firm's value activities are labeled strategically aligned when they are *congruent* with the firm's adopted value discipline. Congruence describes a state of harmony and agreement. Brown, Lamming et al. (2000:269) define congruence as *strategic resonance*, 'an ongoing, dynamic, strategic process whereby customer requirements and organisational capabilities are in harmony and resonate'. Lanning and Michaels (1988) describe congruence as '*echoing* the value proposition in every activity of the company' (page 3) and '*echoing* it [the value proposition] through every function of the business' (page 13). Womack and Jones (1996) suggest that congruence is inherent in value flow.

Based on the alternative definitions of value³⁷ and the human inclination to resist cross-functional, systems thinking, it is not surprising that value misalignment³⁸ frequently occurs. Cousins (1994) portrays value misalignment as "gaps" within

³⁵ See Sections 2.4 and 2.5 for further discussion of Rich and Hines (1997)'s "three pillar approach to strategic alignment" which is illustrated in Figures 2I and 2J.

³⁶ The definition of strategic alignment is found in the close of the preceding section. See Section 2.4 for further discussion. See also Section 2.5 for a discussion of policy deployment, and Figure 2L for a comparison of "cascade" versus "intervention" alignment strategies.

³⁷ See Sections 5.1 for economic definitions of value and Section 1.5 for value's usage as a noun, adjective and verb.

³⁸ The opposite of the term value alignment defined in Section 5.2, value misalignment may be defined as the 'ineffective translation of customer value (value as an adjective) into value offerings (value as a noun)'

the firm whenever interacting members hold differing conceptualizations of value³⁹. Rich and Hines (2000) support Cousins (1994), placing “gaps” and “(mis)alignment” at the intersections of the four pillars of their relabeled model (see Figure 2J). Fawcett and Magam (2001) reference differing “value structures” (which they suggest are inconsistent goals and priorities), but they do not indicate whether they are the cause or effect of strategic misalignment.

Inconsistent goals and performance measurements practices appear to be substantial barriers to successful supply chain integration. The respondents ranked inconsistent goals third among the 12 barriers explored.... Divergent goals lead managers to make self-interested decisions that are frequently in opposition to those made by other supply chain members. Cooperation is therefore impeded. Only when the various members of a supply chain are “pulling in the same direction” or working toward common goals can competitive product/service offerings be developed and managed for long-term success. Closely related is the fact that as an organization pursues different projects based on its priorities, its supply chain partners are likely to become frustrated. In this scenario, mismatched goals will lead one or more members of the supply chain team to view the other members as only partially committed to the “team”. Simply stated, the *different value structures make collaboration difficult as each firm may struggle with valuing strategic directions and goals that are different from their own*. [emphasis added] Fawcett and Magam (2001:38)

This author observed a lack of consensus in the supply literature as to whether firms (a) *can* operate according to a joint value objective at the network/systems level and/or (b) *should* manage goal congruence at the network/systems level⁴⁰. Yet Womack and Jones (1996) consider purchasing and supply management (PSM) professionals to be the “architects of the value stream”: their contribution must therefore be strategic. This author will now discuss PSM’s role (i.e. its value-add) in the flow of value across the value stream.

5.4 The Role of PSM in achieving value flow

Cox and Lamming (1997:47-48) contend that the source of supply management’s “value-add” lies in *external resource management* and *relational competence analysis*. These terms are used ambiguously in the supply literature. Sometimes they are used synonymously and interchangeably; most often they are not clearly defined. To increase clarity this author will review the supply literature in the context of supply academics’ use of these terms.

³⁹ See Section 4.5. See also Section 6.4 where this author outlines Zeithaml, Parasuraman et al. (1990)’s model (which forms the basis of the value gaps model described in Section 7.3).

⁴⁰ See Section 4.5.

Perhaps because of its origins in production, the purchasing profession has traditionally viewed its central occupation as *resource* (value as a noun) *management*. Recall that production-based definitions of value are primarily cost-based (see Figure 5E). This is reflected in early supply management frameworks. Kraljic (1983:110) holds that supply strategy depends on two factors: (1) the strategic importance of purchasing in terms of the value-added by product line, the percentage of raw materials in total *costs* and their impact on profitability, and so on; and (2) the complexity of the supply market gauged by supply scarcity, pace of technology and/or materials substitution, entry barriers, logistics *cost* or complexity, and monopoly or oligopoly conditions. See Figure 5J. Porter (1985) also recommends categorising purchased inputs based on *cost* (value as a noun) as a first step in developing a supply strategy.

Figure 5J: Purchasing portfolio
Source: Kraljic (1983:111)

Figure removed

All significant purchased inputs should be identified, and listed in the order of importance to total cost. They should then be divided into purchased operating inputs and purchased assets and, within these categories, into items purchased regularly such as raw materials and office space, and irregularly purchased items such as equipment and consulting. Categorized purchased inputs in this way can direct attention to areas where opportunities for cost reduction are frequently present. Porter (1985:90)

Relational competence analysis is an extension of Williamson (1985)'s earlier work on efficient governance. Williamson bases his model of efficient governance (see Figure 5K) on transaction cost economics (TCE) principles. Recall that TCE contends that transaction costs are driven by three factors: asset specificity, uncertainty, and frequency⁴¹. Macbeth and Ferguson (1992) extend Williamson's framework with a fourth cost driver: the flexibility of an organisation and its resource teams. See Figure 5L. Like Williamson, they describe three types of co-ordinating mechanisms: market-based (Williamson's "market governance"), vertically integrated (Williamson's "unified governance") and partnering (Williamson's "bilateral governance"). Macbeth and Ferguson (1992) appear to place assets (value as a noun) though on an equal footing with transactions in determining the proper governance structure:

High asset specificity, high transaction uncertainty, occurring relatively frequently, tends to suggest that vertical integration is appropriate, but the result is less flexibility in organizational and resource terms Low asset specificity with low uncertainty at any frequency suggests minimal interaction and a market solution. Partnering is our name for the intermediate form but is not one of the fourteen names found by Mari Sako when she reviewed the literature. Partnering has medium asset specificity (i.e. some things are unique and related only to the partner); low transaction uncertainty (both parties must work to remove any misunderstandings); high frequency of transactions (otherwise why bother?) but still retains some flexibility on both sides. Macbeth and Ferguson (1992:104)

Macbeth and Ferguson (1992:104) advance an "inter-organizational relationship continuum", i.e. a range of co-ordinating mechanisms for managing different types of external transactions. See Figure 5M. They assert that there are some transactions that a firm should never manage externally; this determination is made based upon the underlying asset. Macbeth and Ferguson (1992) thus appear to collapse *external resource management* (assets) and *relational competence analysis* (governance) into a single factor (core skills):

⁴¹ See Section 4.4 for discussion of transaction cost economics (TCE).

**Figure 5K:
Efficient governance
Source: Williamson (1985:79)**

Figure removed

Figure 5L: Organizational Structures And Transaction Costs
Source: Macbeth and Ferguson (1992:103)

Figure removed

Figure 5M: The Inter-Organisational Relationship Continuum
Source: Macbeth and Ferguson (1992:106)

Figure removed

Torger Reeve describes these as internal contracts and argues from the viewpoint of the boundary between what is in-house and what is not, the efficient decision is to limit the internal transactions to those core skills having high asset specificity which significantly contribute to competitive advantage in the market. Macbeth and Ferguson (1992:104)

Macbeth and Ferguson (1992:104) note that these *core skills* '[reflect] part of the "Excellence" message, which suggests that companies re-focus on their core competences ... and out-source everything else'⁴².

Cox (1996) uses the terms "core asset" or "critical assets" to describe "core skills"⁴³. Although Williamson (1985) had discussed "asset specificity" a decade earlier, Cox (1996:60) claims that Williamson bases his theory on an excessive 'reliance on "sunk costs" '. Cox (1996:61) defines high asset specificity as those skills and knowledge 'that allow [a firm] to command a sustainable position within a supply and value chain, which, in turn, allows them to make a regular and sufficiently acceptable margin or profit level'. He constructs a typology of internal and external contractual relationships based on this revised definition. See Figure 5N. Since core skills, capabilities and knowledge should be defended at all cost if a firm is to survive and thrive in its industry, Cox asserts that they should always remain internal to the firm. See Figures 5O and 5P.

Coincident with the merging of the terms *external resource management* (assets) and *relational competence analysis* (governance) by the authors above, others authors appear to assert a correspondence between one or both of the above terms and the purchasing function's evolution. Freeman and Cavinato (1990) propose a development model whose four stages are associated with the type of good purchased i.e., *external resource management* (assets). See Figure 5Q. Cousins and Marshall (2000) use "Supply Chain Development Programme"⁴⁴ research findings to develop a five stage Transition Positioning Matrix. See Figure 5R. They explicitly link their model to Kraljic (1983)'s purchasing portfolio. See Figure 5S. Later stages of purchasing development are associated with strategic

⁴² See Section 4.4 for a discussion of resource-based and competence-based theories of the firm. This author asserts that Macbeth and Ferguson (1992) include premises from four of Mintzberg, Ahlstrand et al. (1998)'s ten schools of strategy – design and learning (core skills / competences) and power and environmental (critical assets) – obfuscating any assumed definition of value. See Section 2.2 for discussion of competitive strategy and the dangers of assumed value definitions.

⁴³ Cox (1996), like Macbeth and Ferguson (1992), combines premises from multiple schools of strategy. Therefore, the caveats outlined in the previous footnote apply equally to Cox.

⁴⁴ A four-year, £1million research programme launched in 1993 involving a group of twenty leading UK-based manufacturing, retail and service companies and a variety of academics from two UK universities (Bath and Cardiff).

Figure 5N: A Typology of Internal and External Contractual Relationships
Source: Cox (1996:62)

Figure removed

Figure 5O: A Continuum of Asset Specific Contractual Forms
Source: Cox (1996:63)

Figure removed

Figure 5P: A Stepladder of external and internal contractual relationships
Source: Cox (1996:63)

Figure removed

Figure 5Q: Purchasing emphases throughout the range of strategic settings
Source: Freeman and Cavinato (1990:8)

Figure removed

Figure 5R: Transition Purchasing Matrix
Source: Cousins and Marshall (2000:197)

Figure removed

Figure 5R: Transition Purchasing Matrix (continued)

Source: Cousins and Marshall (2000:197)

Purchasing assessment factors -- legend

Figure removed

Figure 5S: Transition Assessment Matrix
Source: Cousins and Marshall (2000:199)

Figure removed

items, i.e. those Cox (1996) characterises as of “high asset specificity” (i.e., being “core” or “critical” assets).

Lamming (1993) proposes a development model whose four stages are associated with the type of relationship characterising buyer-supplier interactions, i.e. *relational competence analysis* (governance). He bases his model on an historical analysis of automotive supply relations in the Japanese, European and North American. See Figure 5T. He advocates a new phase – “lean supply” – which is grounded in the principles of “lean thinking”. Project_ION (1998:46) summarise the fundamentals of “lean supply” as including ‘identification of duplications (such as invoices, expediting, inspection), continuous improvement, equal effort between customer and supplier, learning in concert with suppliers and removal of blames cultures’. They also list several procurement “best practices” to implement lean supply:

- Managing the [buyer-supplier] relationship as a quasi-firm (suppliers’ employees working for customer and vice versa)
- Implementing cost transparency (more than open book negotiation which in practiced only means supplier’s open books. Also a danger of two sets of books). Therefore, it must be a two-way process.
- Search and selection environments
- Relationship assessment and analysis (moving from traditional vendor assessment i.e. supplier assessment to a two-way communication process) Project_ION (1998:46)

In contrast to the above, other authors relate purchasing’s development to the underlying industry, suggesting a relationship between purchasing’s evolution and some unclear combination of *external resource management* (assets) and *relational competence analysis* (governance). Cammish and Keough (1991) advance a four stage development model for purchasing whose themes – “serve the factory”, “lowest unit costs”, “coordinate purchasing” and “strategic procurement” – map to the characteristics of a company’s industry. Spiers (1977) posits a model correlating industry with supplier relationship type and performance attribute (i.e., price, price and quality, reliability, etc). The correlates in both models are a confusing mixture of factors. For example, Spiers (1977) begins the performance attribute scale with price and ends it with value stream management.

Figure 5T: The Four-Phase Model Of Customer-Supplier Relations
Source: Lamming (1993:152,194)

Figure removed

Figure 5U: Strategic stages in the development of a purchasing function
Source: Reck and Long (1988:4-5)

Figure removed

Figure 5V: Supply chain integration framework

Source: Fawcett and Magam (2001:102)

Figure removed

Figure 5W: Organisational Frameworks
Source: Mintzberg (1979) in Mintberg and Quinn (1995:332,344)

Six Basic Parts Of The Organization

Basic Pulls On The Organization

Figure(s) removed

Figure 5X: Basic organisational types

Source: Mintzberg (1979) in Mintzberg and Quinn (1995:331-349)

Figure(s) removed

Cox claims that these models are not contingent and therefore not strategically appropriate⁴⁵. In a co-authored article he notes that Cox and Lamming (1997:9) 'reject the view that there can be one operational approach and methodology for the improvement of supply management in all companies and, therefore, one route to strategic elevation. [Cox and Lamming's] view is essentially contingent; they would argue that the Toyota or Japanese model, with its focus on long-term and collaborative supply relationships, may be appropriate but only under certain conditions and certainly not for all possible supply conditions' Cox and Lamming (1997:9). Cox singles out Rich and Hines (1997) as exemplifying the non-contingent approach particularly their "Three pillars" approach derived from Japanese manufacturing approaches⁴⁶. This author draws attention, however, to the fact that Kraljic (1983) proposes a *portfolio* framework for segmenting purchased inputs; Cousins and Marshall (2000) map stages of their model to the different categories in Kraljic's matrix. Cousins and Marshall (2000) therefore may be read as indicating the minimal or base-line purchasing capabilities (as reflected in the stage of development) required to manage each respective category effectively. This author interprets evolutionary models in this manner.⁴⁷

The purpose of developing the purchasing function is to increase its value-add in the overall value stream. This is accomplished by one of this author's value first principles: *align purchasing and corporate strategies*.⁴⁸ Several writers have provided frameworks to help achieve such alignment. Spekman (1981) and Watts, Kim et al. (1992) detail "tests of consistency" between purchasing and corporate competitive strategies. Reck and Long (1988) propose a four-stage process for evolving the role of the purchasing function in order to achieve greater strategic consistency / alignment. See Figure 5U. Fawcett and Magam (2001:102) advance a supply chain integration framework that emphasises goal alignment; unfortunately the framework remains at a very high level. See Figure 5V.

⁴⁵ See Section 2.2 for a discussion of strategic appropriateness.

⁴⁶ See Figures 2I and 2J and Section 2.5 for a discussion of the 'Three Pillar' framework

⁴⁷ As it is beyond the scope of this thesis as well as the objectives of this chapter, this author draws no conclusions whether Freeman and Cavinato (1990), Lamming (1993), Rich and Hines (1997) and Cousins and Marshall (2000) *normatively* posit that purchasing strategies/practices associated with later stages *should* be used for *all* categories of supplied inputs. In another article Cousins (1998:24) appears to suggest otherwise concluding that 'all firms are snakes, they are maximisers and satisficers concerned with their own survival and self-interest. If that self-interest is best served by working closely with another firm then they will do so. However, when that interest is no longer served, rest assured, they will bite you!'

⁴⁸ Chapter Two focuses on this first principle. See also Section 5.3 for discussion on value alignment.

Hines (1997) provides a detailed alignment framework based on Mintzberg (1979)'s conceptualization of organisational structures. Mintzberg (1979) asserts that all organisations are composed of six basic parts which pull differently on the organisation. See Figure 5W. He contends that the organisation should be viewed as a system of flows whose patterns are unique to different firms. Mintzberg (1979) claims, however, that there are basic organisational types. These basic types reflect differences in the importance placed on various parts of the organisation across firms, the corresponding differences in the pulls on the organisation, and the resulting impact on the system of flows⁴⁹. See Figure 5X.

Hines (1997) uses Mintzberg (1979)'s six organisational parts to characterise the alignment achieved by various inter-company networking models. Hines (1997:149) describes the six parts as follows:

Organisational part	Description
The Strategic Apex	Where the management of the organisation is overseen
The Middle Line	A hierarchy of authority between the operating core and the strategic apex
The Operating Core	The base of the organisation including those people who perform the basic work of producing the products and rendering services.
The Techno-Structure	The staff function of analysts who plan and formally control the work of others.
The Support Staff	The staff function that provides internal services such as cafeteria, mailroom, or public relations office.
The Ideology	The strong culture that encompasses the traditions and beliefs of an organisation that distinguishes it from other organisations and infuses a life or soul into the five part skeletal structure.

Hines (1997:149) posits that 'to achieve complete strategic and operational alignment it is necessary to align each of these zones'. He labels this state Full Zone Alignment. He claims that only his network sourcing model leads to Full Zone Alignment. See Table 5F. Hines (1997:149) also posits a series of inter-company co-ordinating mechanisms between two companies (i.e. a buyer and a supplier) although he claims that there are no co-ordinating mechanisms between many parts (for example, between the Customer's Middle Line/Operating Core and the Supplier's Strategic Apex). See Table 5G.

⁴⁹ Mintzberg (1979:35) identifies flows 'of authority, of work material, of information, and of decision processes (themselves informational)'.

Table 5F: A Typology of Intercompany Networking Source: Hines (1997:151)							
Author	Model	Practical Alignment					
		Strategic Apex	Middle Line	Operating Core	Techo-Structure	Support Staff	Ideology
Hakansson (1982); Mattson (1984)	Interaction Theory / Network Approach	Yes	Yes	No	Yes	No	No
Piore & Sabel (1984)	Flexible Specialisation	Yes	No	Yes	No	No	Yes
Jarillo (1988)	Strategic Networks	Yes	No	Yes	Yes	Yes	Yes
Howard (1990)	Republics (Federal Networks)	Possibly	Yes	No	Yes	No	No
Davidow & Malone (1992)	Virtual Corporation	Yes	Yes	Yes	Yes	Yes	No
Lamming (1993)	Lean Supply	Yes	Yes	Yes	Yes	Yes	No
Macbeth & Ferguson (1994)	Partnership Sourcing	Rarely	Yes	No	No	No	No
Hines (1994)	Network Sourcing	Yes	Yes	Yes	Yes	Yes	Yes

Table 5G: Inter-company coordinating mechanisms within network sourcing Source: Hines (1997:164)						
From Customer to Supplier	Practical Alignment					
	Strategic Apex	Middle Line	Operating Core	Techo-Structure	Support Staff	Ideology
Strategic Apex	Yes: 2, 4	No	No	No	No	Yes: 1
Middle Line	No	Yes: 3, 4	No	Yes: 3	No	Yes: 1
Operating Core	No	Yes: 3	Yes: 5	Yes: 3	No	Yes: 1
Techo-Structure	No	Yes: 3	No	Yes: 3, 4	No	Yes: 1
Support Staff	No	Yes: 6	No	No	No	Yes: 1
Ideology	Yes: 1	Yes: 1	Yes: 1	Yes: 1	Yes: 1	Yes: 1

Legend:

1. Mutual Adjustment
2. Strategic Deployment
3. Standardisation of Work, Output and Skills
4. Standardisation of Norms
5. Standardisation of Outputs
6. Standardisation of Support Staff

Cunningham and Homse (1986:266) researched interactions between a number of British customers and suppliers. These interactions include traditional relationships between the customer's buyer and the supplier's salesperson, i.e. matched-level dyads. These interactions also include 'multi-status, multi-

functional, multi-level' relationships (i.e., mismatched-level dyads) especially in some of the more involved customer-supplier relationships.

Interface contacts in industrial markets between suppliers and customers rarely take the form of simple dyadic relationships between salesman and buyer or, indeed, of salesmen's face-to-face meetings with different members of the customer's DMU [decision making unit]. Several personnel in different functional departments in supplier companies are involved in a network of contacts with their counterparts in the customer firm and this embrace multiple levels in the hierarchy. These contacts develop into a variety of extremely complex patterns as the stages of a supplier-customer relationship evolve over time. Cunningham and Homse (1986:272)

Some of these mismatched dyads represent interactions for which there are no coordinating mechanisms according to Hines (1997:149). Yet according to most of the alternative value management system authors identified in Figure 4Y, such interactions between firms will increase as suppliers and customers reassign value stream activities in order to improve value flow (i.e. achieve higher levels of value alignment).

5.5 Reassigning value stream activities to increase value flow

Hoover, Eloranta et al. (2001) document that customers and suppliers reassign activities within their respective value stream activities in order to increase total value. They posit several basic reconfigurations of value chain activities on both the demand-side and the supply-side. Hoover, Eloranta et al. (2001) assert that firms reshape their value offerings by moving the two points in the value stream where demand meets supply (i.e. where customer "pull" meets supplier "push")⁵⁰. They claim that by calibrating these points, demand can be synchronized with supply thereby creating more customer value.

Hoover, Eloranta et al. (2001:74) describe three different ways to move the *Order Penetration Point (OPP)*, 'The point in the supply chain at which customer demand (an order) is allocated to the [supplier's] product'. See Figure 5Y. The ship-to-order OPP is characteristic of traditional customer-supplier interactions where a customer's purchasing group interacts with a supplier's sales force to obtain already created goods. Rapid delivery (benefit for the customer) depends upon large inventory (cost for the supplier); the larger the product range, the larger

⁵⁰ Hines, Lamming et al. (2000:37) include Decision Point Analysis as one of seven value stream mapping tools. They note that Decision Point Analysis identifies 'the dislocation point where customer pull meets supply chain push' (page 41). They do not provide any further description of the tool.

Figure 5Y:
Reshaping the Value Offering: Moving the Order Penetration Point (OPP)
Source: Hoover, Eloranta et al. (2001:74)

Figure(s) removed

Figure 5Z:
Reshaping the Value Offering: Moving the Value Offering Point (VOP)
Source: Hoover, Eloranta et al. (2001:77)

Figure(s) removed

the inventory. If suppliers reduce inventory in the warehouse, they risk not being able to quickly fulfill orders.

Each OPP has different costs and benefits for the supplier and the customer. According to Hoover, Eloranta et al. (2001), the further the customer moves the OPP into the supplier's value chain, the more the flowing benefits and costs may be incurred:

- Greater flexibility in configuring the value offering;
- Longer time to fulfill the order (slower response);
- Lower risk of producing/holding unwanted products.

Moving the OPP involves a series of customer-supplier negotiations to balance increases in benefits for the total value stream with increases in costs sustained by individual players. Hoover, Eloranta et al. (2001) claim that the supplier often simultaneously proposes moving the *Value Offering Point (VOP)*, the second point that links supply and demand, as part of this negotiation. Moving the VOP is an attempt to align more effectively the supplier with the customer's objectives (in the process identifying opportunities for increased sales). Hines, Lamming et al. (2000)

Hoover, Eloranta et al. (2001:77) describe three different ways to move the VOP. See Figure 5Z. The offer-to-purchase VOP is characteristic of arm's-length customer-supplier interactions where a customer's purchasing group determines who supplies which goods when. Other VOPs have different costs and benefits for the supplier and the customer. According to Hoover, Eloranta et al. (2001), the further the supplier moves the VOP into the customer's value chain, the more the following benefits and costs may be incurred:

- Reduced risk of not having the proper inputs to operate efficiently (customer);
- Better information earlier with more time to (re)act (supplier);
- More efficient demand fulfillment;
- Separate inventory control processes for each customer.

Hoover, Eloranta et al. (2001) use Kim and Maubourgne (1997)'s term "value innovation" to describe the "quantum leap in value" that sometimes occurs as a result of reconfiguring value stream activities by moving the VOP and OPP.

A value innovation is a distinct offering that makes it possible for the customer to change the way he operates. It is the starting point of a co-evolutionary process where both the customer and supplier can uncover new sources of value thanks to the changes made by the other party. As a result, the customer starts to assign higher value to the particular supplier's offering because of the value it adds to the customer's business. Once a value threshold is reached, the customer gets 'locked on' to the supplier and the process is difficult to stop or reverse. Hoover, Eloranta et al. (2001:38)

Kim and Maubourgne (1997:106) claim that the logic of value innovation requires firms to 'think in terms of the total solution customers seek, even if that takes the company beyond its industry's traditional offerings'. This logic, however, forces a re-examination of the traditional conceptualization of products and services⁵¹. This logic also suggests a reconfiguration of traditional roles within industry.

Kim and Maubourgne (1997:106) document how value innovators change the nature of customer-supplier interactions within their industries. A year earlier Kornelius and Wynstra (1996:412) similarly noted fundamental changes occurring in the customer-supplier relationship asserting that customers and suppliers cannot always be distinguished as different categories of external counterparts of a firm 'especially when looking at the additional benefits or services that both the "supplier" and the "customer" can provide to their counterpart'.

It is our strong belief that in many long-term relationships suppliers can be treated as customers, while customers can be seen as suppliers. Dealing with these diffuse roles of external counterparts in a more conscious manner increases the value of relationships for the firm, but has important implications for purchasing and marketing management. Purchasing becomes marketing, and marketing becomes purchasing. Kornelius and Wynstra (1996:412)

Normann and Ramírez (1993)'s concept of the "value constellation"⁵² supports the previous assertions: i.e., the "blurring of customer-supplier roles" (Kornelius and Wynstra (1996)), "value innovation" (Kim and Maubourgne (1997:)) and "demand-supply chain synchronization" (Hoover, Eloranta et al. (2001)).

Normann and Ramírez (1994:x) also hold that the distinction between products and services 'is irrevocably blurred, since all products carry a periphery of services on which their value depends, and the "hard" product core is better seen

⁵¹ See Section 6.4 for a discussion of the product versus service distinction.

⁵² See Section 4.6 for a discussion of Normann and Ramírez (1993)'s "value constellation".

as an embodiment of services contributed by the actors that have had a hand in its development’.

How then should the reader conceptualise customer value? Kornelius and Wynstra (1996:412) claim that the ‘services exchanged by both the supplier and the customer can be much more important than the products which they exchange’. Normann and Ramírez (1994:x), however, consider the terms products and services to be obsolete; at one point they suggests firms think about offering ‘anything of value to a customer’ (page 27). Baily, Farmer et al. (1998:88) observe ‘An idea gaining widespread support is that “Quality is whatever the customer says it is”.’ Since the alternative value management systems introduced in Section 4.6 and further described in this section aim to optimize value to the ultimate customer, this author will now review definitions of customer value in the literature.

5.6 Conclusion

This chapter continued the author’s detailed discussion of the five value first principles guiding this thesis’s research. Specifically this author discussed the fourth of the five principles: *ensure that value flows across the system*.

Accordingly he examined several key concepts in the literature. This author reviewed alternative *definitions of value* from the economics literature; described *total quality management* and *continuous improvement*, and examined their contribution to *value-add* within value chains; explored the concept of *value flow* within the *value stream*; discussed the role of purchasing and supply management in achieving value flow; and examined inter-firm *reassignment of value stream activities* to increase value flow.

The next chapter will complete the discussion of the five value first principles. In order to *ensure that value flows across the system* (the fourth principle), the literature asserts one *use ultimate customers’ perceptions to understand value* (the fifth principle). To support this assertion, this author will examine the literature to discuss different *types of value* and the concept of a *value hierarchy*; review *societal, organisational and individual determinants of value assessment*; explore *customer satisfaction* and *customer (value) perceptions*; discuss the difference

between *customer service expectations versus perceptions* as a basis for identifying *service (value) gaps*; describe the relevance of *value gaps* to *firm expectations / expectations* of the *supply management* process.

CHAPTER SIX:

DISCUSSION OF VALUE FIRST PRINCIPLES

**‘USE ULTIMATE CUSTOMER’S PERCEPTIONS TO
UNDERSTAND VALUE’**

6.0 Purpose

In the preceding chapter this author continued his detailed discussion of the five value first principles guiding this thesis's research. He discussed the fourth of the five value first principles: *ensure that value flows across the system*. Accordingly he examined key value concepts and definitions from the economics, quality, production, purchasing and supply chain management literatures.

This chapter completes the discussion of the five value first principles. In order to *ensure that value flows across the system* (the fourth principle), the literature asserts that one *use the ultimate customer's perceptions to understand value* (the fifth discipline). To support this assertion, this author will review the academic literature in order to:

1. Examine the different *types of value* and the concept of a *value hierarchy*;
2. Review *societal, organisational and individual determinants of value assessment*;
3. Explore *customer satisfaction and customer (value) perceptions*;
4. Discuss the difference between *customer service expectations versus perceptions* as a basis for identifying service (*value*) *gaps*;
5. Describe the relevance of *value gaps to firm perceptions / expectations of the supply management process*

6.1 Value typology and hierarchy

Value is a concept crossing academic disciplines. In the preceding chapter this author demonstrated some of its many guises: financial, accounting, economic (Section 5.1); quality (Section 5.2); etc. Value's multi-dimensional character is unsurprising for, as John Fekete notes, 'We live, breathe and excrete values. No aspect of human life is unrelated to values, valuations, and validations'¹.

Nearly a half century ago Hartman (1958) recognised the differing conceptualisations of value held by the various academic disciplines. Hartman posits that value definitions are driven by the application (i.e., referring to persons or to things) and by the context (i.e., usage). He constructs a hierarchical definition of value based upon the use situation. Hartman (1958) asserts that

¹ John Fekete (ed.) 1988. *Life After Postmodernism: Essays on Value and Culture*. London. Macmillan. In: Andrew (1995)

intrinsic value is greater than *extrinsic* value which is in turn greater than *systemic* value². See Table 6A. As one ascends the hierarchy, value becomes increasingly intangible and subjective. His taxonomy thus parallels Maslow (1943)'s earlier hierarchy of needs³.

Janisch (1992) also posits a triple-level framework outlining different kinds of value desired by a firm's various stakeholder groups. See Table 6B. Value is different in kind not only across stakeholder groups – for example, differences between what

Table 6A: Value taxonomy Source: Hartman (1958:314)			
Application to	Intrinsic Value	Extrinsic Value	Systemic Value
Individual persons	Ethics	Psychology	Physiology, Jurisprudence of "person"
Groups of persons	Political science, Social ethics	Sociology	Law of persons and institutions
Individual things	Aesthetics	Economics	Technology
Groups of things	Science of civilization	Ecology	Industrial technology, Civil engineering, Games, Law of property, Ritual
Concepts	Metaphysics	Epistemology	Logic
Words	Poetry, Literary criticism	Rhetoric, Semantic, Linguistic analysis	Grammar, Theory of communication

Table 6B: Objectives, benefits and value generators for different stakeholders Source: Janisch (1992) in Gomez (1999:68-69)			
Stakeholders	Main objective/benefits	Partial benefits	Value generators
Shareholders and investors	Increase of company value	Dividends Stock price gain Power	Sales growth Profit margin Investments Cost of capital Tax rate
Board of directors	Well-functioning corporate leadership	Taking over responsibility Prestige Bonuses	Control Delegation Information

² Hartman (1958:300) illustrates the difference between the three definitions with the following example: 'A button valued *systemically* is valued in a button factory, *extrinsically* in its function on my coat, and *intrinsically* if I am a button fetishist'.

³ See Section 3.2 for discussion of Maslow (1943)'s hierarchy of needs.

Top management	Professional fulfillment	Security Success Power/social status Rewards/pay Personal growth Dividends/stock price gain	Control Income Sales growth/profit Security Job design
Employees	Quality of life	Securing a living Salary Personal growth	Income Job security Working conditions Participation
Customers	Satisfaction of needs	Market performance Price Security Peripheral services	Product quality Price value Product security Quality of supply Image
Suppliers	Maintaining and developing a livelihood	Own value increase Independence Security	Strength of demand Stable relationship Pricing Turnover/investments
Lenders	Increasing the appeal of investments	Return on investment Security Power	Cost of loan capital Amortisation Turnover/investments Control
Government	Welfare	Economic growth Procedural justice Economic stability Independence Balance of power Environmental quality	Taxes/fees Tax exemption Compliance with rules / regulations Prosperity of private sector
Public/society	'Fair future'	Control over economic activities Justice Advancement of public welfare	Donations/foundations Information systems Environmental protection

customers versus employees perceive to be valuable – but also within groups (reflecting the context of its usage). Janisch (1992) identifies three categories of value: “main benefits / objectives”, “partial benefits” and “value generators”; unlike Hartman (1958) they are not ranked in terms of importance. Janisch (1992) does observe, however, that they exhibit differing degrees of tangibility.

Bahm (1993) differentiates “intrinsic values” (ends) from “instrumental values” (means).

Ends, that is, ends-in-themselves, are called intrinsic values because their value is contained within themselves. Means, that is, means to ends-in-themselves, are called instrumental values because their values derive from their usefulness in bringing about or maintaining intrinsic values. Bahm (1993:40)

He identifies four different approaches to value: *hedonism* (pleasure = good, pain = bad); *voluntarism* (satisfaction of desires = good, frustration of desires = bad); *romanticism* (desirousness = good, apathy = bad); and *anandism* (desirelessness = good, desirousness = bad). He observes that voluntarism, which he considers the most commonly encountered approach in business, often muddies the concept of value by confusing *ends* with *means*.

Voluntarism involves a paradox. Although intrinsic good is held to exist as a feeling of satisfaction, it often appears as if located in the object or objective desired. You do not normally consciously desire a feeling of satisfaction. You thirst, and drinking satisfies your desire by slaking your thirst. You desire to possess, and feel satisfied by attaining. You desire to go, and feel satisfied as you begin to move. Satisfaction comes from having desires for particular things, objects, activities, and achievements. So attention is focused on such things. They become inherent parts of (or the whole of) the goal sought. Then the intrinsic good sought after often appears as if located in them. Bahm (1993:44)

The distinction – and sometimes confusion – between ends and means is also noted in the marketing literature. For example, Woodruff and Gardial (1996) espouse a means-end theory to explain how customers view products and services (Figure 6A). They assert that individuals within the firm express value in three different ways: as attributes of its products and services, as consequences of the use of its products and services, and as the customer's desired end-states⁴. These levels increase in abstraction as one moves up the hierarchy (Figure 6B). They claim that one can identify the particular value level or perspective assumed by a supplier by considering the types of questions the firm asks its customers.

At the attribute level, one could simply ask the customer to describe the product or service. At the consequence level, however, one would ask questions that focus on the customer, such as "How do you use this product?", "What happens when you use this product?" or "What does this product do for you?" Woodruff and Gardial (1996:67)

Whilst understanding and measuring value at the desired end-states level is much more difficult than at the attributes level⁵, Woodruff and Gardial assert that the stability or constancy of value increases as one ascends the hierarchy and that value become "increasingly relevant to the customer" page 64.

⁴ Note the similarity between Woodruff and Gardial (1996)'s description of "the customer's desired end-states" and Lanning (1998)'s concept of "the resulting experience". See Section 5.2. See also Zeithaml (1988)'s identification of other "means-end chain models" in marketing (see Table 6C).

⁵ Recall from Section 5.2 that Lanning and Michaels (1988) also recognized the difficulty. 'Understanding with any accuracy the real value of an experience for a customer is not easy. The question to answer is this: what would the customer perceive as the value of the end-result consequence of this event, compared to alternatives, if they could experience it? This is quite different from asking how much the customer is currently ready to pay' Lanning and Michaels (1988:46). He also observes: 'Many descriptors commonly presented as customer needs and benefits are really only a description of the organizations' product or what the organization does' Lanning (1998:49).

**Figure 6A:
Hierarchy of Values**

Source: Woodruff and Gardial (1996:64-65)

Figure removed

Figure 6B: Sample business-to-business value hierarchy

Source: Woodruff and Gardial (1996:68)

Figure removed

Figure 6C: Framework for Value-Focused Thinking
Source: Keeney (1992:45,84)

Figure removed

Figure 6D: Overview Value-Focused Thinking
Source: Keeney (1992:24)

Figure removed

Keeney (1992) also supports the means-end theory. Moreover, he asserts that a hierarchy of objectives exists *in all decisions*.

The decision context and the fundamental objectives together provide the decision frame. The decision context defines the set of alternatives appropriate to consider for a specific decision situation. The fundamental objectives both make explicit the values that one cares about in that context and define the class of consequences of concern. In other words, *the fundamental objectives are the ends objectives, as opposed to the means objectives, of a given decision context*. It is critical that the decision context and the fundamental objectives be compatible, as they are interdependent concepts. [emphasis added] Keeney (1992:30)

Keeney (1992) places *strategic objectives* above *fundamental (ends) objectives* and *means objectives*. See Figure 6C. Since the 'values of decisionmakers [*sic*] are made explicit with [these] objectives', Keeney (1992:33) advocates a values-based approach to decision-making (which he labels values-based thinking) consisting of the iterative identification, understanding and articulation of relevant values. See Figure 6D.

Table 6C: Means-Ends Chain Models in Marketing Source: Zeithaml (1988) in Enis, Cox et al. (1990:475)				
Source	Attribute level	Quality level	Value level	Personal value level
Young and Feigin (1975)	Functional benefits	Practical benefit	Emotional payoff	
Rokeach (1973); Howard (1977)	Product attributes	Choice criteria	Instrumental values	Terminal values
Myers and Shocker (1981)	Physical characteristics	Pseudo-physical characteristics	Task or outcome referent	User referent
Geistfeld, Sproles, and Badenhop (1977)	Concrete, unidimensional, and measurable attributes (c)	Somewhat abstract, multidimensional but measurable (b)	Abstract, multidimensional, and difficult to measure attributes (a)	
Cohen (1979)	Defining attributes	Instrumental attributes		Highly valued states
Gutman and Reynolds (1979)	Attributes	Consequences	Values	
Olson and Reynolds (1983)	Concrete attributes	Abstract attributes	Function consequences; psychosocial consequences; instrumental values	Terminal values

Sources:

- Cohen, Joel B. (1979). "The Structure of product attributes: defining attribute dimensions for planning and evaluation" in Schocker, A. (ed.) *Analytic Approaches to Product and Marketing Planning*. Cambridge, Massachusetts: Marketing Science Institute.
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<p>Table 6D: Characteristics of Social Norms Source: Extracted from Hofstede (1980) pages 122 and 184</p>
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Table removed

<p>Table 6E: Consequences of Social Norms Source: Extracted from Hofstede (1980) pages 135 and 186</p>

Table removed

Keeney (1992) uses the metaphor of *language* to describe his recommended decision-making process:

The language of value-focused thinking is the common language about the achievement of objectives in any particular decision context. It is not the technical language of many specialties. This basis in common language should facilitate communication and understanding. Keeney (1992:25)

Recall that this author envisages individuals (firms) as conceptualising value as an adjective whenever they equate value with the consequences of an event (i.e. the benefits of the resulting experience)⁶. Individuals (firms) conceptualise value as a noun whenever they equate value with the features / attributes of their products and services. This author notes that customer preferences (value as an adjective) must therefore be *translated* within the firm into specific products (value as a noun). He asserts that value stream activities are the “translation” mechanism between value as an adjective (i.e., customer preferences) and value as a noun (i.e., value offering).

Value management is similar to a language with its own rules of syntax. Based on the value (objectives) hierarchies above, value as an adjective precedes value as a noun. In other words, the value hierarchy posits that the firm's *value proposition*⁷ is of a higher order to the firm's customers than the firm's *value offering*⁸ *ceteris paribus*⁹. This claim is supported by the literature. Day, Shocker et al. (1979:10) assert that ‘People seek the benefits that products provide rather than the product *per se*’. Zeithaml (1988:4) references multiple means-end chain models (Table 6C) where ‘the simplest level is a product attribute [and] the most complex level is the *value* or *payoff* of the product to the consumer’ [emphasis added]. She also adopts the model for her research¹⁰. Anderson and Narus (1999:5) implicitly adopt the means-end approach in their analysis of business (industrial) market management; they note that ‘value in business markets is the worth in monetary terms of the economic, technical, service, and social *benefits* a firm receives in exchange for the price it pays for a market offering’ [emphasis added]. Keeney (1992) unsurprisingly also places consequences (ends) over alternatives (means).

⁶ See Section 5.2.

⁷ Defined by Lanning (1998) in Section 5.2.

⁸ Defined by Normann and Ramirez (1994) in Section 4.6.

⁹ Notwithstanding Womack and Jones (1996:16) apparent assertion to the contrary: Value ‘is only meaningful when expressed in terms of a specific *product* (a *good* or *service*, and often both at once) which meets the customer's needs at a specific price at a specific time’ [emphasis added]. Womack and Jones (1996:16)

¹⁰ Zeithaml (1988)'s means-end model of consumer perceptions of price, quality and value will be reviewed in Section 6.4.

Your reason for interest in any decision problem is the desire to avoid undesirable consequences and to achieve desirable ones. The relative desirability of consequences is a concept based on values. Hence, the fundamental notion in decisionmaking [*sic*] should be values, not alternatives. Alternatives are the means to achieve the more fundamental values. Keeney (1992:3)

However, Woodruff and Gardial (1996:60) observe that the buyer's value judgments 'concern the relationship between the product, the situation, and the user'. They envisage the process as three interlinked circles with value judgment at the centre. Most of the preceding discussion focused on the first of these three, i.e. on either the attributes of the value offering (value as a noun) or the benefits of the value proposition (value as an adjective). The second of Woodruff and Gardial (1996)'s three value judgment components – usage situation – will be discussed in Section 6.3. This author now turns to the third value judgment component – the user – and will review at a high level the societal, organisational and individual influences on the user's value assessment process.

6.2 Societal, organisational and individual determinants of value assessment

The academic literature discussing the societal, organisational and individual determinants of value assessment – the subjective interpretation of external “objective” criterion, the associated intellectual and emotional response(s), and the resulting action(s) – is extensive and wide-ranging. To remain focussed on the chapter's objectives, this author will broadly review its chief contributors¹¹. He will demonstrate that various societies, organisations and individuals interpret seemingly *objective* and *factual* evidence very differently¹².

Hofstede (1980) provides one of the earliest studies of society's influences on value assessment. He uses two constructs – *values* and *culture* – to describe the mental programs used by an individual when operating as a singleton, as a member of a firm, or as a citizen of a country. He conceptualises value generically using a preference-based definition (value as an adjective)¹³:

I define value as “a broad tendency to prefer certain states of affairs over others”. This is a simplified version of the more precise anthropological definition by Kluckhohn

¹¹ The reader is directed to these seminal contributions for further investigation of a particular topic or discipline.

¹² Their value assessment, however, is “appropriate” for that particular decision-making entity as it reflects his/her/their respective *evaluative criteria*.

¹³ See Section 5.1 where this author compares preference-based, exchange-based and production-based definitions of value in the economics literature.

(1951:395)¹⁴: “a value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of actions”. Hofstede (1980:19)

Hofstede (1980) posits that values as such are non-rational and subjective. He notes that values in fact form each individual's subjective definition of reality. Hofstede (1980) supports the means-end model of human behaviour which is based on a hierarchy of values¹⁵, yet notes that the hierarchy is not always in a state of harmony.

Hofstede (1980:25) labels this hierarchy a “system of values”. This value hierarchy is in turn subsumed by *culture*, the second of his two constructs. He defines culture as ‘the collective programming of the mind’¹⁶ which distinguishes one human group from another’ Hofstede (1980:25). He notes that *culture* is to human groups (i.e., organisations, nations, etc.) what personality is to the individual; as such, cultural traits can be measured just as personality traits are measured. His research compares the attitudinal differences in the cultural traits of forty countries as reflected by two indices: power distance¹⁷ and uncertainty avoidance¹⁸. Hofstede (1997:14) later posits five cultural dimensions: power distance (from small to large), collectivism versus individualism, femininity versus masculinity, uncertainty avoidance (from weak to strong), and temporal orientation (short-term versus long-term). Hofstede (1980) asserts that cultural differences (Table 6D) have consequences (Table 6E) which effect individual and collective value assessments. In other words, value as an adjective (i.e. preference) is specific to a particular culture (or set of similar cultures)¹⁹.

¹⁴ Kluckhohn, C. (1951) “Values and value-orientations in the theory of action: An exploration in definition and classification”. In T. Parsons and E. A. Shils (eds.) *Toward a General Theory of Action*. Cambridge, Massachusetts: Harvard University Press, 1951.

¹⁵ See Section 6.1 for discussion of the *means-end model* and the *value hierarchy*.

¹⁶ Hofstede (1997) later labels culture ‘the software of the mind’.

¹⁷ Hofstede (1980:92) observes: ‘The basic issue involved [in power distance], to which different societies have found different solutions, is human inequality. Inequality can occur in areas such as prestige, wealth and power; different societies put different weights on status consistency among these areas. This inequality is usually formalized in hierarchical boss-subordinate relationships. According to Mulder's Power Distance Reduction Theory, subordinates will try to reduce the power distance between themselves and their bosses and bosses will try to maintain or enlarge it. [Hofstede's] study, however, suggests that the level of power distance at which both tendencies will find their equilibrium is societally determined’.

¹⁸ Hofstede (1980:161) observes: ‘Coping with the inevitable uncertainties in life is partly a non-rational process which different individuals, organizations, and societies resolve in different ways. The main underlying dimension is the tolerance for uncertainty (ambiguity) which can be found in individuals and which leads some individuals in the same situation to perceive a greater need for action for overcoming the uncertainty than others. This tolerance of uncertainty is partly a matter of personality, partly a matter of culture. Societies differ in their societal norms for uncertainty avoidance, and members of these societies are socialized in the society's institutions toward this norm’.

¹⁹ See Section 6.3 where this author notes that academics disagree whether “objective” quality standards exist in the face of “perceived” quality. See Section 5.2 where this author reviews alternative definitions of quality.

Hofstede (1980)'s list of cultural differences (Table 6D) and their consequences (Table 6E) strongly suggests that low power distance and low uncertainty avoidance cultures encourage and reward behaviours that 'question the way one traditionally does things'. Hofstede (1980) suggests that high power distance and high uncertainty avoidance cultures discourage and punish these behaviours. These practices are shaded in Tables 6D and 6E. These behaviours are associated with value's usage as verb²⁰. In other words value is conceptualised as a verb relatively more frequently in one culture (or set of similar cultures) than another.

Fukuyama (1995) supports this statement. Fukuyama (1995:10) references Coleman (1988)'s concept of *social capital* – 'the ability of people to work together for common purposes in groups and organizations' – to describe people's ability to associate with each other²¹. From sociability springs trust; Fukuyama (1995:7) asserts that 'a nation's well-being, as well as its ability to compete, is conditioned by [this] single, pervasive cultural characteristic: the level of trust inherent in the society'. Fukuyama (1995) suggests a correlation between high-trust societies and the successful implementation of lean manufacturing practices²². Assuming the correlation extends to lean's value principles²³,

²⁰ See discussion of double-loop learning in Section 4.2 and continuous improvement in Section 5.2.

²¹ James S. Coleman, "Social capital in the creation of human capital", *American Journal of Sociology* 94 (1988): S95-S120. Fukuyama (1995:364) notes, however, that according to Robert D. Putnam, the first use of the term *social capital* was by Jane Jacobs in *The Death and Life of Great American Cities* (New York: Random House, 1961), p. 138.

²² Fukuyama (1995:258) notes: '[Lean manufacturing] has been studied extensively, particularly by the MIT International Motor Vehicle Program, on whose work I will rely heavily here [Womack, Jones et al. (1990)]. The fact that it has been implemented in so many different countries suggests to the authors [Womack, Jones and Roos] of the MIT study that it is not a culturally determined practice but rather a management technique of universal applicability. This is correct to some extent: high-trust relations can be exported across cultural boundaries. But it is no accident that lean manufacturing was invented in Japan, a country with an extremely high level of generalized social trust. Moreover, it is not clear from the MIT study's own data that this technique can be implemented nearly as well in low-trust countries as in high-trust ones'. Cox (1998) rejects the universal applicability of lean manufacturing. 'One can argue that even if Womack, Jones and Roos have properly described the causes of business success in the Japanese auto-assemblers case, there may be some doubt as to whether or not they have properly understood the basis of their success. However, even if they have it does not follow at all that this approach is appropriate for all other car producers. ... The fact that the Japanese have adopted a more hierarchical, structured and quasi-vertically integrated supply chain, when compared to the more vertically integrated, arms-length and opportunistic approach traditionally adopted in the West, does not mean that copying the Japanese approach will necessarily be the way to obtain competitive advantage in the future' Cox (1998:103). Lamming (1993) suggests that lean principles are universally applicable -- as long as they are applied systemically. Lamming notes that the 'Application of [Toyota Production System] concepts in the West has been essentially tactical in nature, however, despite the common use of the word "philosophy" in connection with them. The essence of lean production is the irreversible installation of such principles as the fundamentals of a manufacturing strategy. ... This is fundamentally different from grafting a new technique, e.g. just-in-time delivery, on to an otherwise traditional mass production system' Lamming (1993:18). Nishiguchi (1994) concludes that Japanese supply practices (what Lamming (1993) labels "lean supply") are not culturally determinant. 'There is little direct evidence that the Japanese culture in itself can explain these [Japanese] subcontracting practices. Indeed, the diffusion of some of the new Japanese subcontracting practices across national boundaries has demonstrated their cross-cultural applicability' Nishiguchi (1994:159). It is beyond the scope of this thesis as well as the objectives of this chapter to resolve this debate; this author draws no conclusions as to whether lean principles are culturally determinant or universally applicable. This author aims solely to demonstrate that other researchers support Hofstede (1980)'s conclusions in *Culture's Consequences: International Differences in Work-Related Values*, and that these conclusions have important implications for supply management.

²³ See Section 4.6 for a discussion of the value principles characterizing the lean approach.

Fukuyama (1995) supports Hofstede (1980)'s conclusion that work-related values are culturally contingent / relative.

Hofstede (1997) extended his original cultural research to encompass organisational form. Using the power distance and uncertainty avoidance indices as co-ordinates, he notes a relationship between the position of a country in the two-by-two diagram and the method used to solve organisational problems in that society. 'There is empirical evidence for the relationship between a country's position within the PDI [power distance index] – UAI [uncertainty avoidance index] matrix, and models of organisations implicit in the minds of people from those countries *which affect the way problems are tackled*' [emphasis added] Hofstede (1997:140). These four models include "the pyramid of people" [in France], "the well-oiled machine" [in Germany], "the village market" [in the United Kingdom] and "the family" [in Hong Kong]. He associates these four with Mintzberg (1982)'s organisational types, their key parts and their preferred coordination mechanisms²⁴. See Figure 6E.

Recall from Section 5.4 that Mintzberg (1979) conceptualises the organisation as a system of flows; Mintzberg (1979:35) identifies flows 'of authority, of work material, of information, and of decision processes (themselves informational)'. Since the flows differ by organisational type²⁵ (Table 6F), the literature²⁶ suggests that value stream alignment may also differ by organisational type. The implication is that value may be organizationally contingent / relative.

²⁴ See Section 5.4 and Figures 5W and 5X for review of Mintzberg's organisational typology.

²⁵ Mintzberg (1979) initially proposes five organisational types; Mintzberg and Quinn (1991) later posits seven. See Figure 5W and 5X for summary of organisational types.

²⁶ See detailed discussion of value flows (Section 5.2) and value alignment (Section 5.3).

Table 6F: Characteristic flows by organisational type Source: Mintzberg (1979:497)					
Flow	Simple Structure	Machine Bureaucracy	Professional Bureaucracy	Divisionalised form	Adhocracy
Authority	Significant from the top	Significant throughout	Insignificant (except in support staff)	Significant throughout	Insignificant
Regulated system	Insignificant	Significant throughout	Insignificant (except in support staff)	Significant throughout	Insignificant
Informal communications	Significant	Discouraged	Significant in administration	Some between headquarters and divisions	Significant throughout
Work constellations	None	Insignificant especially at lower levels	Some in administration	Insignificant	Significant throughout
Decision making	Top down	Top down	Bottom up	Differentiated between headquarters and divisions	Mixed, all levels

Morgan (1997) supports this conclusion. He posits eight organisational metaphors²⁷ closely mirroring Mintzberg and Quinn (1991)'s seven organisational types. Echoing Hofstede (1997:140)'s assertion above that 'the models of organisations implicit in the minds of people ... *affect the way problems are tackled*', Morgan (1997) notes:

This book, [*Images of Organisations*], is based on a very simple premise: that all theories of organisation and management are based on implicit images or metaphors that lead us to see, understand, and manage organisations in distinctive yet partial ways. *The use of metaphor implies a way of thinking and a way of seeing that pervade how we understand our world generally.* For example, research in a wide variety of fields has demonstrated that metaphor exerts a formative influence on science, on our language, and on how we think, as well as how we express ourselves on a day-to-day basis. Morgan (1997:4)

Handy (1993:181) similarly notes the role of organisational ideology²⁸ on 'the way work should be organized, the way authority should be exercised, people rewarded, and people controlled'. Price (1996) draws the same conclusions at the network level (Figure 6F), asserting that different types of intra-firm and inter-firm organisation (supply) network management engender different levels of learning. Again, the implication is that value may be organizationally contingent / relative.

²⁷ Morgan (1997) describes organisations as machines, organisms, brains, cultures, political systems, psychic prisons, flux and transformation, and instruments of domination.

²⁸ Handy (1993:20) classifies these ways of thinking / ways of seeing as seven schools of organisational thought: scientific management (e.g. F. W. Taylor); human relations (e.g. C. Barnard); bureaucratic (e.g. M. Weber); power, conflict and decisions (e.g. P. Selznick; J. March and H. Simon); technology (e.g. J. Woodward); systems (e.g. P. Senge, J. Forrester); and institutional.

Based on the preceding authors, this author asserts that the value assessment process within a supply chain influences a firm's value assessment process (and *vice versa*). By extension, this author also asserts that an individual's value assessment is influenced by/reflective of his or her organisation's value assessment process (and *vice versa*). Hogan and Blake (1996) support this latter assertion, noting that similar personalities tend to "cluster" into organisational environments with common *values*²⁹.

Holland (1973, 1985) and Schneider (1987) suggest that, in order to understand organizational behavior, we need to understand the values, interests and personalities of an organization's members. Holland has long maintained that "the character of an environment reflects the typical characteristics of its members. If we know what kind of people make up a group, we can infer the climate the group creates" (1985, p. 35). Schneider (1987) also argues that particular organizations attract, select, and retain particular kinds of people and that the behavior of an organization is a function of the kind of people it retains. Pfeffer's "organizational demography model" (1983) is similar, but it focuses on the shared biographical characteristics of incumbents. In each of these schemes, *interpersonal compatibility is associated with perceived similarity, and this in turn creates a tendency toward relative homogeneity of values, interests and personality within organizations.* [emphasis added] Hogan and Blake (1996:111)

The literature contains many personality taxonomies³⁰ each based on the premise that, whilst individuals differ in how they view the world, process information, and make decisions, they can be classified into a finite set of personality types. These frameworks are based on Hippocrates' four temperaments (sanguine,

²⁹ Hogan and Blake (1996), however, do not define either the singular form (*value*) or plural form (*values*) of the concept. Holbrook (1999:8) claims that the literature "generally uses[s] the former (value, singular) to designate *the outcome of an evaluative judgment* (that is, the *summary valuation*), whereas the latter (values, plural) typically refers to the *standards* (Taylor 1961; Kahle and Timmer 1983), *rules* (Arrow 1967), *criteria* (Baylis 1958; Pepper 1958; Rokeach 1973), *norms* (Pepper 1958), *goals* (Veroff 1983), or *ideals* (Abbott 1955; Pepper 1958; Cowan 1964; Hartman 1967) on the basis of which evaluative judgments get made (that is, the underlying *evaluative criteria*)". This author adheres to Holbrook's distinction between singular and plural forms of the value concept. This author notes that previous discussions of economic, financial, and accounting definitions of value (Section 6.1) reference the singular form; that the quality literature (Section 6.2) references the singular form (i.e., *muda*) and the plural form (i.e., continuous improvement); that the hard systems literature (Section 5.2) references the singular form (recall that hard systems thinking takes *goals* as already established) whilst the soft systems literature (Section 5.2) references the plural form (recall that double-loop learning / second order change, i.e. soft systems thinking, usually concerns problems with unclear, uncertain or changing *evaluative criteria*); that the 'cultural / organisational / personality' literature (Section 7.2) references both forms yet stresses the plural form (i.e., *norms*); and that the marketing literature references both forms yet traditionally stresses the singular form (i.e., utility) over the plural form (i.e., *criteria, standards*). More recent marketing research explores the psychosocial issues concerning the establishment of decision-making criteria / standards. Whilst this thesis observes the distinction between the singular and plural forms of the value concept, this chapter and this thesis do not aim to study the establishment of decision-making criteria. The aim of this footnote is to draw attention to the fact that this author's conceptualisations of value as a noun and as an adjective reference the singular form of the concept whilst this author's conceptualisation of value as a verb references the plural form.

³⁰ Description of these taxonomies is beyond the scope of this section. For more information, the reader is directed to Hogan and Blake (1996:103-104) who identify at least eight taxonomies.

Figure 6E: Five forms of organisation Source: Hofstede (1997:152) based on Mintzberg (1979)

Figure removed

Figure 6F: Organisation, Culture and Learning Source: Price (1996:99)

Figure removed

choleric, phlegmatic, and melancholic)³¹ and/or Carl Jung's related psychological 'functional types':

[In 1920] Jung identified introverts, who are focused inward, and extraverts, who are focused outward. The former are more self-reflective; the latter prefer more human interaction. Jung also identified sensors, who value facts and concrete reality, and intuitors, who value imagination and inspiration. The former are practical; the latter, visionary. Thinkers, according to Jung, are logical, objective, and analytical. Feelers are subjective and concerned with feelings and values. Bacon (1996:10-11)

In the 1950s Isabel Myers and Katheryn Briggs used these psychological 'functional types' to devise the Myers-Briggs Type Indicator (MBTI), one of the most commonly used classification systems of personality types³². They posit sixteen different 'patterns of action', i.e. permutations of Jung's psychological types.

Two of the dimensions (S [sensing] / N [intuitive] and T [thinking] / F [feeling]) are called functions. They relate to the way we perceive – by looking at facts (S) or possibilities (N) — and judge what we perceive – by making logical connections (T) or weighing the relative values and merits of the situation according to human concerns. These dimensions are opposed but not mutually exclusive. We embody some aspects of each dimension, but we typically prefer one function over its opposite. Bacon (1996:12)

Individuals of different MBTI types process information differently. Behavioural theory describes the distortion in interpretation or judgment that results. For example, Howard and Sheth (1967) note:

A perceptual phenomenon implies either ignoring a physical event which could be a stimulus, seeing it attentively or sometimes imagining what is not present in reality. All perceptual phenomena essentially create some change in quantity or quality of objective information. ... The buyer not only selectively attends to information, but he may actually distort it once it enters his mental state. In other words, quality of information can be altered by the buyer. ... The buyer may distort the cognitive elements contained in information [i.e., the objective criteria] to make them congruent with his own frame of reference [i.e. MBTI type]Howard and Sheth (1967) in Enis, Cox et al. (1990:145-146)

³¹ To increase understanding of these four Keirsey and Bates (1984) recommend alternative labels. "The Hippocratic names for the four temperaments are misleading. They derive from the four body fluids—blood, phlegm, yellow bile and black bile—and so have arcane (and limited) reference. On the other hand, four Greek gods, all of whom Zeus commissioned to make man more like the gods, represent the temperaments quite accurately, albeit metaphorically. These are Apollo, Dionysus, Prometheus, and his brother Epimetheus. Myth has it that Apollo was commissioned to give man a sense of the spirit, Dionysus to teach man joy, Prometheus to give man science, and Epimetheus to convey a sense of duty. It will clarify to name the four temperaments after gods because each god—and each temperament—has its followers" Keirsey and Bates (1984:29).

³² Bacon (1996:12) notes: "The Myers-Briggs Type Indicator [MBTI] ... is one of the most researched and validated tools of its kind".

As a result, responses and actions can be “predicted” by MBTI (Table 6G).
Keirsey and Bates (1984) assert that the MBTI explains why clusters of related personality

<p>Table 6G: Recognising the MBTI Types Extracted from Bacon (1996:13-15) and Keirsey and Bates (1984:25-26)</p>
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Table removed

types exhibit different methods of learning, teaching, managing and leading. The implication is that the *value assessment process* used by an individual – i.e. his or her (a) interpretations of “objective” value criterion, (b) associated intellectual and emotional responses, and (c) resulting actions – is contingent upon / relative to his or her MBTI (e.g., personality type).

Based on the discussion in this section, value is therefore culturally, organizationally and individually determinant. Yet previous sections demonstrated that one's definition of value is also contingent upon one's adopted school of strategy and school of economics. This suggests that there is likely no accepted or standard definition of value in companies. Morgan (1997)'s caveats about the limitations of *any* management theory are particularly relevant:

We have to accept that any theory or perspective that we bring to the study of organisation and management, while capable of creating valueable insights, is also incomplete, biased and potentially misleading. ... Metaphor is inherently paradoxical. It can create powerful insights that also become distortions, as the way of seeing created through a metaphor becomes a way of not seeing. Yet when we recognize this we can begin to mobilize the true power of metaphor and its role in management. In recognizing theory as a metaphor, we quickly appreciate that no single theory will ever give us a perfect or all-purpose point of view. Morgan (1997:5)

What is needed is a framework that helps identify the different value “lenses” or “filters” used by individuals / groups operating according to the precepts of the schools of strategy, theories of the firm, economics, organisational approaches, and systems levels reviewed in Chapters Two through Six. This author's conceptualization of value as a noun, as a verb and as an adjective provides such a neutral framework³³. Using this framework enables one to identify the underlying value assumptions held by two parties, and the ensuing value gaps³⁴ arising from conflicting definitions of value. Before having this discussion, however, this author will briefly explore two remaining sets of value definitions – customer satisfaction and customer (value) perceptions (Section 6.3) and customer service expectations (Section 6.4) – found in the marketing / service operations literature.

³³ This author observes Keeney (1992)'s interpretation of value neutrality. ‘Value-focused thinking is value neutral. Any application of the approach, naturally enough, is not value neutral but value laden. Saying that value-focused thinking is value neutral means that the approach can be utilized in a manner consistent with any set of ethical principles’ Keeney (1992:52). He considers “ethical principles” to operate according to utilitarian (*laissez-faire*) versus non-utilitarian (government-intervention) “economic principles”. This author substitutes the words “strategic, economic, organisational, learning, systems-thinking, and marketing principles” (corresponding to the literature reviewed in Chapters Two through Six) for “ethical principles” when labeling this author's framework value neutral. This author's integrated value framework, the foundation for his primary research, will be reviewed in detail in Section 7.3.

³⁴ See Section 6.4 for a discussion of *value gaps*.

Figure 6G: Six representations of satisfaction and value
Source: Oliver (1999) in Holbrook (1999:54)

Figure removed

Figure 6H: Nomological net of value concepts in consumption
Source: Oliver (1999) in Holbrook (1999:59)

Figure removed

Figure 6I:
Customer Satisfaction is Analogous to Maslow's Hierarchy of Needs
Source: Brown (1995:104)

Figure removed

Figure 6J: Stages of the attribute life cycle
Source: Gale (1994:134)

Figure removed

**Figure 6K:
Aligning a simplified Kano model
with the attribute *life-cycle stages***

Source: Gale (1994:135)

Figure removed

Figure 6L: A Means-End Model Relating Price, Quality and Value
Source: Zeithaml (1988:4)

Figure removed

6.3 Customer satisfaction and customer (value) perceptions

Recall from Section 5.2 that Lanning (1998) defines value (as an adjective) in terms of the 'end-result *consequences*' of a resulting experience. In Section 6.1 this author discusses a hierarchy of values, distinguishing the consequences / benefits (*ends*) from product / service (*means*) attributes. In Section 6.2 this author discusses how the outcomes of the same *value assessment process* are culturally, organizationally and individually determinant. The marketing literature explicitly describes customer satisfaction – and by extension customer value³⁵ – as contingent upon (a) the context of consumption³⁶, (b) the stage of a product's/service's lifecycle and (c) the supplier's abilities and performance.

Day, Shocker et al. (1979:10) discuss the importance of the usage context "which define[s] the benefits being sought". Woodruff and Gardial (1996) observe that the components of the value hierarchy³⁷ change depending upon the use situation. They link 'customer value' and 'customer satisfaction' to the usage situation:

Customer value is the customers' perception of what they want to have happen in a *specific use situation*, with the help of a product and service offering, in order to accomplish a desired purpose or goal. ... Customer satisfaction is a customer's positive or negative feeling about the value that was received as a result of using a particular organization's offering in *specific use situations*. This feeling can be a reaction to an immediate *use situation* or an "overall" reaction to a series of *use situation* experiences. [emphasis added] Woodruff and Gardial (1996:20)

Oliver (1999) posits that the use situation influences the determination of high or low levels of 'quality'³⁸, 'satisfaction', and 'value'³⁹ (Figure 6H).

Gale (1994) in turn links customer satisfaction to the stages of a product's / service's life-cycle (Figure 6J) and to the supplier's competitive performance (Figure 6K). His model is based on seemingly objective criteria: the availability

³⁵ Oliver (1999) notes that the marketing literature depicts the relationship between customer satisfaction and value in six different ways (Figure 6G). Whilst undoubtedly of interest to the reader, a detailed exploration of the difference between "customer satisfaction" and "value" is beyond the scope of this thesis. The objective of this chapter is to discuss the fifth value first principle – *use ultimate customer's perceptions to understand value*. Accordingly this author focuses on the determining factors within the *value assessment process*.

³⁶ Recall from Section 6.1 that Hartman (1958) also recognized that value definitions are contingent upon the context of usage.

³⁷ See Section 6.1 where this author discusses the value hierarchy.

³⁸ See Section 5.2 for a discussion of alternative definitions of quality.

³⁹ Oliver (1999) uses Holbrook (1999)'s axiological framework which classifies the various types of value in the consumptive experience using three dimensions: (1) extrinsic versus intrinsic value; (2) self-oriented versus other-oriented value; and (3) active versus reactive value. The resulting Typology of Consumer Value identifies eight logically distinct types of value: efficiency, excellence, status, esteem, play, aesthetics, ethics and spirituality. The axiological literature, a branch of philosophical inquiry concerning the theory of value, extends across academic disciplines – most of which are not in the scope of this Chapter or thesis. The reader is directed to Holbrook (1999) who provides a succinct overview of the axiological literature. This author will limit axiological discussion to Holbrook (1999)'s definition of consumer value (discussed later in this section) and Hartman (1958)'s / Hartman (1958)'s hierarchy of value (discussed in Section 6.1).

of a product or service, the number of suppliers, their competitive performance, etc. However, these objective matters are subjectively interpreted. Whilst the value offering⁴⁰ is objectively *delivered* by the supplier, it is subjectively *evaluated* / *perceived* by the buyer. Customer value is therefore *both* objectively and subjectively determined⁴¹.

This conclusion is supported by Zeithaml (1988) who posits a means-end model for value which includes both (objective) extrinsic product attributes and (subjective) consumer perceptions. See Figure 6L. Holbrook (1999:5) supports this conclusion as well; he defines consumer value as “an interactive⁴² relativistic⁴³ preference⁴⁴ experience⁴⁵”. His definition of value also mirrors this author’s conceptualization of value as a noun and adjective⁴⁶. Holbrook (1999:5)’s description of value as interactive – ‘a collaboration of both the subject and the object in the constitution of value’ – supports this author’s conceptualization of value as a noun and as an adjective.

Consumer value entails an interaction between some subject (a consumer or customer) and some object (a product). This collaboration of both a subject and an object in the constitution of value, leaves plenty of room for debate among those who would emphasize either the subjectivist or objectivist side.... For example, extreme subjectivism holds that value depends entirely on the nature of subjective experience (Perry 1954; see Frondizi 1971:51). ... In marketing, the foremost disciple of this viewpoint has been Levitt (1960), whose customer orientation assumes that a product has value only if it pleases some customer—in other words, that customers and no one else are the final arbiters of consumer value (Gale 1994: 46, 71). By contrast, extreme objectivism holds that value resides in the object itself as one of its properties (Osborne 1933:93; Lewis 1946:434; Lee 1957: 185; Hall 1961:179; Brightman 1962:31; Loring 1966:17; Hartman 1967:42). Such philosophers argue that value is present in the relevant object whether anyone happens to recognize it or not (Osborne 1933:78; Brightman 1962:33; Frondizi 1971:20). ... In marketing, the objectivist orientation typifies those who pursue the oft-criticized product orientation (Levitt 1960) in assuming that – by virtue of certain resources, skills, or manufacturing efficiencies—they have managed to put value into their offerings. ... *A more reasonable, intermediate position suggests that value involves*

⁴⁰ See Section 4.6 for a definition of value offering.

⁴¹ Note the correspondence between value as an objective phenomenon and (this author’s conceptualisation of) value as a noun, and value as a subjective phenomenon and (this author’s conceptualization of) value as an adjective.

⁴² According to Holbrook (1999), the ‘subject’ of value is the consumer; the ‘object’ of value is any product. By interactive, he means that consumer value entails an interaction between some subject and some object.

⁴³ ‘By *relativistic*, I mean that consumer value is (a) *comparative* (involving preferences among objects); (b) *personal* (varying across people); and (c) *situational* (specific to the context)’ Holbrook (1999:6). Note that (c) is the same as *usage situation* which is discussed earlier in this section.

⁴⁴ ‘The general concept of preference embraces a wide variety of value-related terms prominent in various disciplines and including (but not limited to) such nomenclature as *affect* (pleasing vs. displeasing), *attitude* (like vs. dislike), *evaluation* (good vs. bad), *predisposition* (favorable vs. unfavorable), *opinion* (pro vs. con), *response tendency* (approach vs. avoid), or *valence* (positive vs. negative)’ Holbrook (1999:8). Note the linkage between preference and utility (i.e., value as an adjective). See Section 5.2.

⁴⁵ ‘By *experience*, I mean that consumer value resides *not* in the product purchased, *not* in the brand chosen, *not* in the object possessed, but *rather* in the *consumption experience(s)* derived therefrom’ Holbrook (1999:8). Note that this is the same concept as Woodruff and Gardial (1996)’s description of ‘the customer’s desired end-states’ (Section 6.1) and Lanning (1998)’s concept of ‘the resulting experience’ (Section 5.2).

⁴⁶ Recall that Holbrook (1999)’s differentiation between the plural and singular forms of value supports this author’s differentiation between value conceptualised as a verb and as a noun / adjective. See Footnote 29 in Section 6.2.

an interaction between some subject and some object (Parker 1957:34; Morris 1964:18; Frondizi 1971:26; Woodruff and Gardial 1996:54). Essentially, this interactionist perspective maintains that value depends on the characteristics of some physical or mental object but cannot occur without the involvement of some subject who appreciates these characteristics (Pepper 1958:402; Frondizi 1971: 146). In this light, recall the old conundrum about the tree that falls in the forest without anyone there to hear it. We might argue that the tree makes a noise (objectively emitted) but no sound (subjectively experienced). . . . Along similar lines, the economist Alfred Marshall compared the subjective and objective aspects of value to the two blades in a pair of scissors (Fallon 1971:47): *You need both, working together, to get results*. A single blade, working alone, is like the sound of one hand clapping. [emphasis added] Holbrook (1999:5-6)

The service marketing / service quality / service operations literature (hereafter referred to as the service literature) explicitly connects the concepts of objective value, subjective perceptions of value and standard expectations for value⁴⁷. Moreover, the service literature advances useful frameworks for identifying the gaps occurring whenever buyers and sellers hold differing (and unaligned) conceptualizations of value. This author now turns to a discussion of this literature.

⁴⁷ Zeithaml (1988) (reprinted in Enis, Cox et al. (1990:474-475) observes the following contrasting viewpoints of objective versus subjective quality. He notes that there are differences in type which this author posits are reflective of value's alternative usages. Zeithaml (1988) does not identify a linkage between the two concepts in the quality literature:

'Several researchers (Dodds and Monroe 1984; Garvin 1983; Holbrook and Corfman 1985; Jacoby and Olson 1985; Parasuraman, Zeithaml, and Berry 1986) have emphasized the difference between objective and perceived quality. Holbrook and Corfman (1985), for example, distinguish between mechanistic and humanistic quality: "... mechanistic [quality] involves an objective aspect or feature of a thing or event; humanistic [quality] involves the subjective response of people to objects and is therefore a highly relativistic phenomenon that differs between judges" (p. 33). "Objective quality" is the term used in the literature (e.g., Hjorth-Anderson 1984; Monroe and Krishnan 1985) to describe the actual technical superiority or excellence of the products.

As it has been used in the literature, the term "objective quality" refers to measurable and verifiable superiority on some predetermined ideal standard or standards. . . . In recent years, researchers have debated the use of these measures of quality on methodological grounds (Curry and Faulds 1986; Hjorth-Anderson 1984, 1986; Maynes 1976; Sproles 1986). Concern centers on the selection of attributes and weights to measure objective quality; researchers and experts do not agree on what the ideal standard or standards should be. Others (such as Maynes 1976) claim that objective quality does not exist, that all quality evaluations are subjective.

The term "objective quality" is related closely to—but not the same as—other concepts used to describe technical superiority of a product. For example, Garvin (1983) discusses product-based quality and manufacturing-based quality. Product-based quality refers to amounts of specific attributes or ingredients of a product. Manufacturing-based quality involves conformance to manufacturing specification or service standards. . . .

These concepts are not identical to objective quality because they, too, are based on perceptions. Though measures of specifications may be actual (rather than perceptual), the specifications themselves are set on the basis of what managers perceive to be important. Managers' views may differ considerably from consumers' or users' views. . . . In a research a study for General Electric, Morgan (1985) points out striking differences between consumer, dealer, and manager perceptions of appliance quality'. Zeithaml (1988) (reprinted in Enis, Cox et al. (1990:474-475)) See Section 5.2 for a detailed review of the quality movement. See Section 6.3 for a discussion of the role of perceptions in buying/selling transactions.

6.4 Customer service expectations versus perceptions and the identification of service (value) gaps

Brown, Blackmon et al. (2001:18) define service operations as 'Transformation processes in which there is a high degree of interaction between the customer and the organization, and in which the output may be primarily or partly intangible'. Their definition of service operations is similar to Holbrook (1999)'s definition of consumer value – an “interactive relativistic preference experience” – discussed in the previous section. This similarity is unsurprising given the theoretical overlap between the concepts of value, quality and satisfaction. Perhaps service is another guise of value.

There is some debate in the literature regarding the similarity / dissimilarity between services and products (the latter which is traditionally the object of analysis). Holbrook (1999) detects no fundamental distinction between the two, since all value stems from experiences⁴⁸.

All products provide services in their capacity to create need- or want-satisfying experiences (Morris 1941: 136). In this sense, all marketing is “services marketing.” This places the role of experience at a central position of consumer value. As articulated long ago by Abbott (1955:40):

The thesis ... may be stated quite simply. What people really desire are not products but satisfying experiences. Experiences are attained through activities. In order that activities may be carried out, physical objects or the services of human beings are usually needed..... People want products because they want the experience-bringing services which they hope the products will render.

Holbrook (1999:9)

Recognising that operations is becoming increasingly similar for goods and services, Brown, Blackmon et al. (2001:17) cite Chase (1983) who ‘suggested that operations could be ranged along a continuum from pure manufacturing to pure services, with quasi-manufacturing in the middle’. Berry and Parasuraman (1991:9) also posit a similar good-service spectrum. Zeithaml, Parasuraman et al. (1990:1-2) claim that the distinction between services and goods is disappearing:

Virtually all organizations compete to some degree on the basis of service. It is difficult to name even one industry for which service matters are unimportant. ... As manufacturing executives find it increasingly difficult to establish sustainable, technology-based competitive advantages, they will direct added attention and resources to value-added service as a truer source of superiority. And as manufacturers compete more on service, there will be less distinction between manufacturing and service businesses. Zeithaml, Parasuraman et al. (1990:1-2)

⁴⁸ See Sections 4.6 and 6.3 where this author reviews customer experiences.

As a result, Berry and Parasuraman (1991:9) assert that most firms, even manufacturers, should be properly viewed as service firms:

An easy dichotomy between manufacturing and service firms does not exist. In reality, service output is a major, if not the major, success factor for manufacturing companies. ... Manufacturers are service firms too, just less so than companies commonly considered to be service firms. ... Virtually all products have both tangible and intangible elements that contribute to the core benefit ... Most companies operate within the dotted lines [i.e., the middle of the goods-service spectrum]. And those firms now outside these lines may well move towards them in an effort to add value to and differentiate their products. ...
Berry and Parasuraman (1991:8)

Nevertheless differences do exist between the provision of goods and services. Zeithaml, Parasuraman et al. (1990:1-2) observe that the production, consumption and evaluation of services differ from goods in three fundamental ways: intangibility, heterogeneity, and simultaneity of production and consumption. Brown, Blackmon et al. (2001:16) note that the intangibility and interactive customer contact of services lead to five differences between manufacturing and service operations: storability, transportability, transferability, simultaneity of production and consumption, and quality. Berry and Parasuraman (1991:93) note that 'a good is in essence an object, a thing [whereas] a service is in essence a performance'.

Yet *all* services, all products, and all firm activities *should* be concerned with the creation and provision of *value* -- a fundamental concept. Recall from previous discussions that the following concepts are *based in value*: Lanning (1998)'s concept of the "value proposition" (Section 4.6), i.e. the resulting experience (Section 4.6) or customer's experience (Section 6.3) which leads to customer value (Section 6.3); Normann and Ramírez (1994)'s concept of the "value offering" (Section 4.6), i.e. the firm's combination of products and services (Section 6.4); Womack and Jones (1996)'s "value stream" (Section 5.2), i.e. the firm's activities translating value as an adjective -- customer preferences -- into value as a noun -- value offerings (Section 5.2); and this author's concept of "value alignment" (Section 5.3), i.e. the realisation of customer value in the value stream as evidenced by value flow (Section 5.3). These concepts operate according to *first principles* (outlined in Chapters Two through Six). This author

Figure 6M: Determinants of Perceived Service Quality

Source: Parasuraman, Zeithaml, and Berry (1985:48)

Figure removed

Figure 6N: Conceptual Model of Service Quality
Source: Parasuraman, Zeithaml, and Berry (1985:48)

Figure removed

Table 6H: Value gaps diagnostic questions Extracted from Zeithaml, Parasuraman et al. (1990) (pages 52-53, 72-73, 91-93, 116-117)		
GAP	Key Contributing Factors	Specific issues
GAP 1	1. Lack of market research orientation a. Insufficient marketing research b. Inadequate use of research findings c. Lack of interaction between management and customers	<ul style="list-style-type: none"> • Is research conducted regularly to generate information about what customers want? • Does the marketing research a company conducts focus on quality of service delivered by it? • Do managers understand and utilize the research findings? • Do managers mingle with customers to learn what is on their minds?
GAP 1	2. Inadequate upward communication	<ul style="list-style-type: none"> • Do managers encourage suggestions from customer contact personnel concerning quality of service? • Are there formal or informal opportunities for customer contact personnel to communicate with management? • How frequently do managers have face-to-face contact with customer contact personnel?
GAP 1	3. Too many levels of management	<ul style="list-style-type: none"> • Do too many managerial levels separate top managers from those responsible for dealing with and serving customers?
GAP 2	1. Inadequate management commitment to service quality	<ul style="list-style-type: none"> • Are resources committed to departments to improve service quality? • Do internal programs exist for improving the quality of service to customers? • Are managers who improve the quality of service to customers more likely to be rewarded than other managers? • Does the company emphasize its sales goals as much as or more than it emphasizes serving customers? • Are upper and middle managers committed to providing quality service to their customers?
GAP 2	2. Perception of infeasibility	<ul style="list-style-type: none"> • Does the company have the necessary capabilities to meet customer requirements for service? • Can customer expectations be met without hindering financial performance? • Do existing operations systems enable customer expectations to be met? • Are resources and personnel available to deliver the level of service that customers demand? • Does management change existing policies and procedures to meet the needs of customers?
GAP 2	3. Inadequate task standardization	<ul style="list-style-type: none"> • Is automation used to achieve consistency in serving customers? • Are programs in place to improve operating procedures so that consistent service is provided?
GAP 2	4. Absence of goal setting	<ul style="list-style-type: none"> • Is there a formal process for setting quality of service goals for employees? • Does the company have clear goals about what it wants to accomplish? • Does the company measure its performance in meeting its service quality goals? • Are service quality goals based on customer-oriented standards rather than company-oriented standards?
GAP 3	1. Role ambiguity	<ul style="list-style-type: none"> • Does management provide accurate information to employees concerning job instruction, company policy and procedures, and performance assessment? • Do employees understand the products and services offered by the company? • Are employees able to keep up with changes that affect their jobs? • Are employees trained to interact effectively with customers? • How often does management communicate company goals and expectations to employees? • Do employees understand what managers expect from them and how to satisfy those expectations?

GAP 3	2. Role conflict	<ul style="list-style-type: none"> Do customers and managers have the same expectations of employees? How often do customer-contact employees have to depend on other support services employees to provide quality service to customers? Do employees have more work to do than they have time to do it? Does the number of demands in employees' jobs make it difficult to effectively serve customers? Do too many customers want service at the same time? Do employee cross-sell services to customers in situations where it is inappropriate?
GAP 3	3. Poor employee-job fit	<ul style="list-style-type: none"> Do employees believe that they are able to perform their jobs well? Does the company hire people who are qualified to do their jobs? Does management devote sufficient time and resources to the hiring and selection of employees?
GAP 3	4. Poor technology-job fit	<ul style="list-style-type: none"> Are employees given the tools and equipment needs to perform their jobs well? How often does equipment fail to operate?
GAP 3	5. Inappropriate supervisory control systems	<ul style="list-style-type: none"> Do employees know what aspects of their jobs will be stressed most in performance evaluations? Are employees evaluated on how well they interact with customers? Are employees who do the best job serving customers more likely to be rewarded than other employees? Do employees who make a special effort to serve customers receive increased financial rewards, career advancement, and/or recognition? Do employees feel appreciated for their contribution?
GAP 3	6. Lack of perceived control	<ul style="list-style-type: none"> Do employees spend time in their jobs trying to resolve problems over which they have little control? Are employees given the freedom to make individual decisions to satisfy customer needs? Are employees encouraged to learn new ways to better serve their customers? Are employees required to get approval from another department before delivering service to customers?
GAP 3	7. Lack of teamwork	<ul style="list-style-type: none"> Do employees and managers contribute to a team effort in servicing customers? Do support services employees provide goods service to customer-contact personnel? Are employees personally involved and committed to the company? Do customer-contact employees cooperate more than they compete with other employees in the company? Are employees encouraged to work together to provide quality service to customers?
GAP 4	1. Inadequate horizontal communication a. Inadequate communication between advertising and operations b. Inadequate communication between salespeople and operations c. Inadequate communication between human resources, marketing, and operations d. Differences in policies and procedures across branches or departments	<ul style="list-style-type: none"> Do customer contact personnel have input in advertising planning and execution? Are customer contact personnel aware of external communications to customers before they occur? Does the sales force interact with customer contact personnel to discuss the level of service that can be delivered to customers? Are the policies and procedures for serving customers consistent across departments and branches?
GAP 4	2. Propensity to over promise	<ul style="list-style-type: none"> Is there increasing pressure inside the company to generate new business? Do competitors over promise to gain new customers?

asserts that they are therefore universal terms relevant across the goods-service spectrum.

Zeithaml, Parasuraman et al. (1990) advance a “gaps model” (hereafter referred to as the ZPB model) to measure the discrepancy between a customer’s expectations or desires and his or her perceptions, albeit in a service-oriented context. If one frames expectations and perceptions using value, this author asserts that the ZPB model may be used as a universal (above) and value-neutral (Section 6.2) framework to study value management (Section 4.6). The ZPB model grew out of earlier research into service quality developed by the same group of researchers. See Figure 6M. Zeithaml, Parasuraman et al. (1985) sought to research how customer’s perceptions of service quality are a function of their personal needs and the perceived service delivered. Zeithaml, Parasuraman et al. (1985) posited ten determinants of service quality: access, communications, competence, courtesy, credibility, reliability, responsiveness, security, tangibles and understanding/knowing the customer. These ten were later collapsed into five dimensions – tangibles, reliability, responsiveness, assurance, and empathy – using the findings from an empirical survey (SERVQUAL) upon which they built the ZPB model (Figure 6N). The ZPB model identifies the short-falls between customer expectations and perceptions of overall service quality levels.

The key to delivering high-quality service is to balance customers’ expectations and perceptions and close the gaps between the two. The SERVQUAL methodology can help determine where and how serious the gaps are. In attempting to close SERVQUAL gaps, a company would benefit from an understanding of internal (i.e., within-company) shortfalls or gaps that might be responsible for the external (i.e., customer-perceived) shortfalls. A major component of our multiphase study focused on identifying such internal gaps and relating them to customers’ perceptions of service quality. Zeithaml, Parasuraman et al. (1990:33)

Since Zeithaml, Parasuraman et al. (1990:11) conceptualise value as the customer’s ‘overall assessment of the utility of a product [i.e., value offering] based on perceptions of what is received and what is given’, these gaps are in essence *value gaps*.

Recall from the previous section that Gale (1994) links customer satisfaction to the stages of a product’s / service’s life-cycle (Figure 6J) and to the supplier’s competitive performance (Figure 6K). Conceptually, value may be similarly portrayed. A firm could use Zeithaml, Parasuraman et al. (1990:11)’s set of

diagnostic questions (Table 6H) to help identify the root cause(s) of internal and external value gaps, i.e. differences between expectations and perceptions of value across parties. Such a diagnostic tool is particularly relevant to PSM in determining whether it is perceived as and/or expected to be a strategic function within a particular value stream. The author now turns to this discussion.

6.5 Value gaps and perceptions/expectations of the supply management process

The question of how PSM is/should be perceived within organisations based upon its expected/actual contribution in helping to secure competitive advantage for the firm has long been noted in the literature. There is no consensus perspective concerning this question. Fearon (1968) suggests that the subject has been long debated yet never resolved. He notes that in the early twentieth century Hysell (1922) was already noting the importance of purchasing to the firm although she does not use the word 'strategic':

The purchasing agent should be in the "crow's nest" or "lookout" of the business craft equally, if not more often, than the sales director. The sales department may figure out its plans for a year ahead, but, without the purchasing agent's cooperation in obtaining the raw materials to manufacture, or the finished materials for them to resell, on terms at a price that will meet competition at the time of the sale, the sales department, as well as the financial department, will be greatly handicapped and the aim of all departments—profit—will be that much lessened if not entirely consumed. Helen Hysell, *The Science of Purchasing* (NY: D. Appleton and Company, 1922), p. 102.

Approximately a quarter century later Lewis (1946) asserts that purchasing is indeed strategically valuable. Echoing Hysell (1922) based on purchasing's extensive internal and external relationships, he concludes that purchasing occupies an "extremely strategic position" (page 14) due to its ability to make recommendations to other departments in the firm. Farmer (1972) and Adamson (1980) argue normatively purchasing's strategic role based upon its impact on corporate strategy. At the end of the twentieth century Carter and Narasimhan (1996:24) conclude empirically 'Purchasing has a strategic impact on the firm!'

Fearon (1968) indicates that some of Hysell's contemporaries were already asserting a contrary and for purchasing, woefully negative, view. He references Bull (1922) who stated that:

Buying, on the whole, is rarely as important as selling. Salesmanship which is involved the opening of new markets, the extension of trade, the actual creation of commercial concern, demands greater ingenuity, a bolder course of action, a finer imagination and a wider power of resource than buying can ever do.

A salesman must be hopeful and creative. He should possess robust health and have plenty of vital forces to burn up. A buyer can be morose and ill and cross-grained and despairing, without doing himself or his cause much harm. [Albert Bull, *Buying Goods: The Commercial Buyer and His Work* (London: Sir Isaac Pitman & Sons, Ltd., 1922), p.1]

While lacking Bull's colour, Ramsay (2001:257) uses resource-based theory to reach the same conclusion: 'Purchasing typically has no significant strategic role to play, and the function's activities are operational in nature'.

Between these poles lie most authors who argue that PSM is, could be, and/or should be considered strategic, but that its strategic value is contingent upon adopting a strategic orientation (Spekman and Hill (1980), Farmer (1981), Spekman (1981), Browning, Zabriskie et al. (1983)) or is reliant upon other factors. Farmer (1978) suggests environmental factors claiming that purchasing should assume a strategic role at least in the majority manufacturing companies (even though he notes that most managers do not view purchasing in such a role). Kraljic (1983) asserts that purchasing activities should be determined by the type of spend category, implying that purchasing's activities are strategic only for particular spend categories (thereby confining Spekman's recommendations to purchasing departments responsible for those categories). Van Weele (1984:17) further highlights the importance of the underlying spend categories noting that 'firms that consider purchasing a strategic business area frequently do so because of external factors ... in the supply market'. Cammish and Keough (1991:24) assert that attitudes toward the purchasing function 'reflect the underlying stage of development of a firm's purchasing and sourcing activity'; they argue based on professional experience that the stage of evolution is associated with the industry in which a firm operates. However, Stuart (1996:8) refutes this, noting that 'The strategic role of purchasing has remained virtually unchanged and not statistically different than those firms practising traditional transaction approaches'. Fearon and Leenders (1995) and Monczka and Trent (1995) echo Stuart by observing purchasing's failure to be included in strategic activities.

The difference of opinion *may* be attributed to the authors' use of different units of analysis. For example, the PSM process appears to have bifurcated effectively into a non-strategic component (purchasing) and a strategic component (supply management). When Farmer (1978) observes the perceived myopia in companies vis-à-vis their respective *purchasing* functions, the reader is unsure which activities are included. The same holds true for Burt (1995) who advocates "giving up on" the current generation of executives and educating the next (through a revised management curriculum stressing the importance of *procurement*).

Procurement is equal in importance and power to marketing, finance, and conversion. In point of fact: ... procurement may be even more important than marketing or conversion in many circumstances! I know it, you know it: why don't more CEOs/COOs know it?
Burt (1995:49)

Authors in the literature also use different definitions of business success and competitive advantage. For example, in determining purchasing strategic contribution and/or relevance, Cox (1998) and Ramsay (2001) adopt a conceptual view of success derived from resource-based theory that renders most – if not all – PSM activities non-strategic by definition. In contrast, Ellram, Zsidisin et al. (2002) identify specific PSM "best practices" and then examine their correlation with Total Return to Shareholders (TRS), i.e. a financially based definition of success. So one's answers to the questions 'Is PSM strategic?' and 'Is it valuable?' ultimately depend upon one's unit of analysis and one's definitions of terms.

Unfortunately PSM is currently in danger of being perceived, if not already perceived, by managing directors/chief executives as not valuable and may be subcontracted as a result. Fearon (1968:54) notes that companies had already subcontracted purchasing in the early twentieth century [Rindsfoos (1915)]:

Purchasing was written by C.S. Rindsfoos, President of the United States Purchasing Corporation, a buying company which performed the purchasing functions for other companies for a fee. The author, understandably, attempted to promote the idea of buying companies:

This author believes there are many reasons why the ideal purchasing department of the not far distant future will be in the form of a separate company. In fact, one or two such companies are already organized and in successful operation—successful in the saving they effect for their clients no less than the profits they earn. [C.S. Rindsfoos, *Purchasing* (NY: McGraw-Hill Book Company, Inc., 1915), p. 104.]

Rajagopal and Bernard (1994:149) reference Kanter (1989) to predict 'only purchasing departments that provide a value-added service will be maintained in the firm'. Due to an insufficient *value-add*, other authors anticipate portions of or entire purchasing departments to be subcontracted in the future (Benmeridja and Benmeridja (1996); Evans (1996); Rich (1996); Stannack and Jones (1996); Ramsay (2001)). Yet this begs the questions 'What is one's definition of value?'

"Value" appears to be the key element in assessing purchasing's strategic role in organisations. This author noted in Chapter One that the subject of *value-add* in much of the PSM literature can be characterised as, at best, suffering from a jumble of definitions; or, at worst, as liberally using an undefined "buzz phrase". This author advances a conceptual framework to examine the congruence between the definitions of value held by any functional group and other parties in the firm's value chain. This author intends this model to be a tool that academics and professionals may use to research the degree of value alignment achieved between the PSM department and other parties (notably chief executives / managing directors and front-line staff) in the management of value-based strategies within the organisation's value stream. This author now turns to the discussion of that framework in the context of this thesis's overall research.

6.6 Conclusion

This chapter has completed this author's detailed discussion of the five value first principles guiding this thesis's research. Specifically the author discussed the last of the five first principles: *use ultimate customer's perceptions to understand value*. Accordingly he examined several key concepts from the marketing, service operations and axiology literatures. This author identified different *types of value* and the concept of a *value hierarchy*; discussed *societal, organisational* and *individual determinants of value assessment*; explored the concepts of *customer satisfaction* and *customer (value) perceptions*; discussed the difference between *customer service expectations versus perceptions* as a basis for identifying service (*value*) *gaps*; and described the relevance of *value gaps to firm perceptions / expectations* of the *supply management* process.

Now that this author has reviewed in detail the principles guiding this thesis's research, he can discuss his empirical research plan. The proceeding chapter will review the research methodology, conceptual framework and research approach used in this study. To accomplish this objective, this author will define the terms *philosophy of science*, *first principles* and *research philosophy*; discuss the thesis's *research objectives* and *research questions*; describe the *conceptual value gaps model* this author will use to investigate these questions; review *research philosophical issues* endemic to *management research*; examine the *research approach* selected by this author and discuss the *rationale for its selection*; and outline *potential research pitfalls* of the chosen approach whilst discussing the steps taken by this author to address those pitfalls.

CHAPTER SEVEN:
**RESEARCH METHODOLOGY, CONCEPTUAL
FRAMEWORK AND APPROACH**

7.0 Purpose

In the preceding chapter this author completed his detailed discussion of the five value first principles guiding this thesis's research. He discussed the last of the five first principles: use ultimate customers' perceptions to understand value. Accordingly he examined key value concepts and definitions from the marketing, service operations and axiology literatures.

The purpose of this chapter is to discuss the research methodology, conceptual framework and research approach used in this study. To accomplish this objective, this author will:

1. Define the terms *philosophy of science*, *first principles*, and *research philosophy*;
2. Discuss this thesis's *research objectives* and *research questions*;
3. Describe the conceptual *value gaps model* this author will use to investigate these questions;
4. Review *research philosophical issues* endemic to management research;
5. Examine the *research approach* selected by this author, and discuss the rationale for its choice.
6. Outline potential *research pitfalls* of the chosen approach, and examine the steps taken by this author to address those pitfalls.

7.1 Philosophy of science, first principles, and research philosophy

Since the purpose of *research*¹ is the *scientific* or *systematic*² identification and creation of *knowledge*³, the reader may look to the philosophy of science for research guidance. The philosophy of science concerns itself with asking and answering a fundamental question: 'What is science?' Potter (2000) asserts that this is an important question for the researcher, since society ascribe to scientific knowledge considerable "rhetorical authority" to compel belief.

Claims to the scientificity of any particular discipline, method or body of assertions about the world increase their credibility. It is thus important to be able to decide whether a particular knowledge claim being made, method being used or discipline's alleged scientificity is deserved. Potter (2000:1)

¹ Research is 'an endeavour to discover new or collate old facts etc. by the *scientific* study of a subject or by a course of critical examination' [emphasis added] Oxford English Dictionary (OED).

² The OED defines scientific as '(of an investigation, etc.) according to the rules laid down in exact science for performing observations and testing the soundness of conclusions' and as being '*systematic* and accurate' [emphasis added].

³ Knowledge is 'true, justified belief; certain *understanding*, as opposed to opinion' [emphasis added] (OED).

Potter (2000:2) notes that the philosophy of science consists of four interrelated subject areas: logic⁴, ontology⁵, epistemology⁶ and methodology⁷.

Logic is the name for the area of philosophy which examines the process (es) a researcher uses to justify his or her beliefs (i.e., that Y implies Z)⁸. There are several concepts and constructs in logic which are highly relevant to this study. The first, the *Regress of Reason*, describes one's need to support reasons by preceding reasons (e.g., X implies Y and Z). Responding to the observation that the Regress of Reason could progress *ad infinitum* (e.g., ... V implies W implies X, and Y and Z are logical consequences of X), Aristotle asserts the existence of *propositions* that do not need to be proven. He labels these propositions *first principles of demonstration*. Aristotle asserts that first principles are self-evident, i.e. that they can be intuitively understood by "the mind" (e.g., *noûs*).

There are two logical problems with Aristotle's assertion. The first problem is referred to as the *Problem of First Principles*; it investigates *how* a researcher may *prove* the veracity of first principles. Hume and Kant disagree with Aristotle's belief in the self-evidence of first principles. Hume asserts that one can never *know* the truth of first principles; one needs to *assume* that they are valid. Kant asserts that one can *know* their truth even though one might not be able to *prove* them. The second problem is referred to as the *Problem of Induction*⁹; it investigates *how much* proof (i.e., instances, occurrences, events, individuals, etc.) a researcher needs to justify his or her beliefs (i.e., that Z is true). Regarding the second issue Hume asserts that one can never know how many instances of proof are needed to justify belief in a generalization based on observation (i.e., the process of induction).

⁴ Logic is 'the study of the rules and forms of reasoning with an emphasis upon determining what is correct reasoning [i.e., good judgement]. It is a part of the subject matter of the philosophy of science in considering how to relate observations to hypotheses and conclusions....' Potter (2000:239)

⁵ Ontology concerns the inquiry into the nature of being or existence. 'Ontological claims are claims about the nature of reality, not the specificity of its composition, but rather the nature of the form of its composition' Potter (2000:12).

⁶ Epistemology is 'theories of what knowledge is, what it is possible to have knowledge of, how it is possible to have knowledge at all, etc. Epistemology asks and attempts to answer questions such as: how can we really know that what we think we know actually is knowledge? What is the source of knowledge? What does it mean to say that we know something? What criteria should be used to judge something as being knowledge?' Potter (2000:234)

⁷ Methodology is the study of methods. 'This involves both a reflection upon the nature and form etc. of what particular methods are and a consideration of the applicability (or inapplicability) and virtues (or drawbacks) of the utilization of particular sorts of methods for particular problems' Potter (2000:240)

⁸ This author bases his discussion of logic on *The Proceedings of the Friesian School, Fourth Series* "The Foundations of Value, Part I" which appears on the website of Friesian Kantian philosophers (www.frisian.com). He also relies on his notes from Ramsay (1998)'s unpublished dinner remarks at the 1998 IPSERA conference in London.

⁹ The OED defines induction as 'the inference of a general law from particular instances'.

Hume's assertion posed a serious problem for scientific knowledge, since science was based on the process of induction up to the twentieth century. Popper resolves the *Problem of Induction* by essentially dismissing it. Since induction and verification lead to an infinite *Regress of Reason*, Popper asserts that the researcher should use deduction¹⁰ and falsification instead. According to falsification, a premise must be false if the conclusion or prediction is false. Theories need not be verified, because they can be falsified. Popper asserts that falsification is a form of Kantian philosophy. Popper also asserts that verification is conformable to the Friesian form of Kantianism since Fries and Nelson maintain that first principles exist but cannot be logically proven/verified¹¹.

The five value first principles reviewed in Chapters Two through Six serve as axioms upon which this author constructs his conceptual model. They are used to increase the soundness of this study's logic. A base of guiding principles is needed since, as Easterby-Smith, Thorpe et al. (1991:2) note, 'the decision to study a topic in a particular way *always* involves some kind of philosophical choice about what is important'. Bilton, Jones et al. (1981:628) assert that the concept of research soundness arises because 'different models of reality lead to [a] different propositions of what reality is, [b] different ways of establishing what can be accepted as real, [c] different ways of justifying the data relevant to reality, and [d] different strategies for collecting such data'. In other words, the research method [d] should be determined by the research methodology [c] which reflects the researcher's epistemology [b] which in turn is driven by his or her adopted ontology [a]. Table 7A outlines these inter-relationships.

There are three principle ontological positions within social science research: objectivism, constructionism, and subjectivism. Within these three, Morgan and Smircich (1980) identify six different assumptions about the nature of reality. These six form a continuum of epistemologies mirroring those identified in Table 7A. According to Morgan and Smircich (1980), these approaches conceptualise

¹⁰ The OED describes deduction as 'the inferring of particular instances from a general law'.

¹¹ Such *a priori* knowledge must be "non-inferentially" justified. A detailed discussion of *a priori* knowledge is outside the purpose of this chapter. The reader is directed to Albert Casullo (ed.), *A Priori Knowledge*, The International Research Library of Philosophy (Aldershot: Dartmouth Publishing Company, 1999). The purpose of this discussion is to demonstrate that Aristotle, Hume, Kant, Fries and Nelson support the existence and use of *first principles*.

Table 7A: Appropriate interrelationships between research ontology, epistemology, methodology and methods Source: Sayer (2000)					
Ontology	Objectivism		Constructionism		Subjectivism
Epistemology	Positivism	Post-positivism	Interpretivism	Critical theory	Postmodernism
Methodology	Experimental research Simulation	Experimental research Survey research Case study	Ethnography Phenomenological research Case study Grounded theory Heuristic inquiry	Action research Feminist standpoint research Critical studies	Ethnography Case study Action research
Methods	Sampling Measurement and scaling Questionnaire Statistical analysis	Sampling Measurement and scaling Survey Questionnaire Observation Interview	Observation Interview Focus group Document analysis Life history Visual ethnographic methods Interpretive methods		

Table 7B: Key features of positivist and phenomenologist research paradigms Source: Easterby-Smith, Thorpe et al. (1991:27)		
	Positivist paradigm	Phenomenological paradigm
Basic beliefs (i.e. epistemology):	<ul style="list-style-type: none"> The world is external and objective Observer is independent Science is value-free 	<ul style="list-style-type: none"> The world is socially constructed and subjective Observer is part of what is observed (i.e., is involved) Science is driven by human interests
Researcher should (i.e. methodology):	<ul style="list-style-type: none"> Focus on facts Look for causality and fundamental laws Reduce phenomena to simplest elements Formulate hypotheses and then test them 	<ul style="list-style-type: none"> Focus on meanings Try to understand what is happening Look at the totality of each situation Develop ideas through induction from data
Preferred methods include:	<ul style="list-style-type: none"> Operationalising concepts so that they can be measured Taking large samples 	<ul style="list-style-type: none"> Using multiple methods to establish different views of phenomena Small samples investigated in depth over time

reality as – from most objective to most subjective – (1) a concrete structure, (2) a concrete process, (3) a contextual field of information, (4) a symbolic discourse, (5) a social construction, and (6) a projection of the human imagination. This continuum is more commonly and erroneously portrayed as an exclusive choice between a *positivist* versus *phenomenological* research ‘paradigm’¹². Easterby-Smith, Thorpe et al. (1991:2) describe the key features of these opposing ‘paradigms’. See Table 7B.

¹² Easterby-Smith, Thorpe et al. (1991) credit Thomas Kuhn with popularizing the term paradigm among social scientists. ‘Kuhn (1970) used it to describe the progress of scientific discoveries in practice, rather than how they are subsequently reconstructed within textbooks and academic journals. Most of the time, science progresses in tiny steps, which refine and extend what is already “known”. But occasionally experiments start to produce results that do not fit into existing theories and patterns. ... The result of this is a “scientific revolution” which not only provides new theories, but which may also alter radically the way people see the world, and the kind of questions that scientists consider important to investigate. This combination of new theories and questions is referred to as a new paradigm’ Easterby-Smith, Thorpe et al. (1991:23-24). Potter (2000:242-243) cautions that ‘Kuhn (1970) never completely made it clear how broadly or narrowly to define the term and was rather inconsistent in his own use of it. This lack of definitional clarity exists to the present day. Readers must therefore pay close attention to the context of its usage as it is frequently not precisely defined but nonetheless used as though it had a single unambiguous meaning’. For example, MacKenzie and House (1978:7) define a paradigm as ‘a set of theories, standards, methods and beliefs which are *accepted by most scientists in a field*’ [emphasis added] even though Whitley (1984) demonstrates a lack of paradigm consensus (i.e. acceptance) in management research. *For purposes of this thesis, this author defines a paradigm as the combination of research ontology, epistemology and methodology adopted by a researcher.*

Table 7C: Key advantages and disadvantages of positivist and phenomenologist research paradigms Source: Easterby-Smith, Thorpe et al. (1991:27)		
	Positivist paradigm and quantitative methods	Phenomenological paradigm and qualitative methods
Research advantages:	<ul style="list-style-type: none"> • Provide wide-coverage of the range of situations • Fast and economical • Considerable relevance to policy decisions (particularly when statistics are aggregated from large samples) 	<ul style="list-style-type: none"> • Effective in looking at change processes over time and understanding people's meanings • Able to adjust to new issues and ideas as they emerge and to contribute to the evolution of new theories
Research disadvantages:	<ul style="list-style-type: none"> • Tend to be rather inflexible and artificial • Not very effective in understanding processes or the significance that people attach to actions • Not very helpful in generating theories • Make it hard for the policy-maker to infer what changes or actions should take place in the future (since they focus on what is or what has been recently) 	<ul style="list-style-type: none"> • Data collection can take up a great deal of time and resources • The analysis and interpretation of data may be very difficult • Often feel untidy because it is harder to control their pace, progress and end-points. • Many people, especially policy-makers, may give low credibility to phenomenological studies

Table 7D: Central research questions for this thesis		
Question	Description	Summary
One	How is the term 'value' defined and interpreted within the firm?	The concept of value cannot be defined as a single term but rather as an array of characteristics and strategies.
Two	Does the definition or interpretation of value within the firm change depending on one's assumed value chain perspective?	As value is translated by a firm's functions, its meaning may change resulting in 'value misalignment' potentially occurring between parties across the value chain.
Three	Does the definition or interpretation of value change at different operational / management levels within the value chain?	As value is translated by individuals holding different managerial / operational levels, its meaning may change resulting in 'value incongruence' potentially occurring between parties across the value chain.
Four	How might a firm improve its 'management' of value?	An empirical framework is advanced for identifying and measuring the five major 'value gaps' where 'value misalignment' and 'value incongruence' occur within a firm's value chain. This framework includes value's conceptual usage as an adjective, verb and noun at three different operational / managerial levels.

Different research paradigms seek to achieve wholly different goals. For example, *positivism* seeks to explain, *interpretivism* seeks to understand, whilst *critical theory* seeks to change. It is therefore not valid to claim that one research methodology is universally better than another. Eilon (1974), for example, identifies several different types of researcher: the chronicler, the dialectician, the puzzle solver, the empiricist, the classifier, the iconoclast, and the change agent.

Depending upon the research project, he argues that each type of researcher may have a contribution to make, even though each will also display particular weaknesses. In a similar vein, Easterby-Smith, Thorpe et al. (1991:2) assert that each type of research methodology may have a contribution to make depending upon a study's research objectives. See Table 7C. To assist the reader in making that determination vis-à-vis this research project, this author will now discuss the objectives of the research and this thesis's key research questions.

7.2 Research objective and research questions

This study is predominantly concerned with researching how firms manage value-based strategies, and more specifically, with examining purchasing and supply management's role (the "unit of analysis") in the management of value-based strategies. *The objective of this study is the development of a theoretical process synthesizing existing academic knowledge; it is this author's intent to provide managers with a practical approach for managing value-based strategies.*

Accordingly this author generated research questions from a detailed review of the academic literature. These research questions are outlined in Table 7D.

7.2.1 Question One: How is the term 'value' defined and interpreted within the firm?

The term value is commonly used in every day business parlance however it is often misunderstood (Section 1.3). Companies describe themselves as following *value*-based strategies (Section 2.2), creating *value*-added (Section 5.2) relationships (Section 5.4) to unlock and maximize *value* (Sections 3.1 and 4.4) in their *value* chains (Section 4.5 and 5.5). Firms conduct *value* analysis and *value* engineering (Section 5.2) to optimise their *value* propositions (Section 5.2 and 6.1) for increased customer *value* (Section 6.3). Although practitioners and academics frequently use terms/expressions based on value, their underlying conceptualisation of value is generally amorphous if not entirely undefined.

This author posits (Section 1.3) that the failure to define this term adequately can lead to a misalignment of goals and objectives within an organisation (Sections 2.4, 2.5, and 3.3). The resulting intra-firm "value incongruence" describes situations where one part of the organisation focuses on a particular value

proposition whilst other parts are driven by one or more alternative propositions – often unbeknownst to each other. For example, the supply management group may believe that it is adding value by cutting costs whilst the marketing group simultaneously tries to differentiate the firm's products based on their technological superiority (Section 3.5). Whilst supply management is following a value-based strategy, it may not be augmenting – indeed it may be hindering (Section 5.4) – the firm's value proposition in the eyes of the firm's customers (Sections 6.3, 6.4 and 6.5).

Although frequently referencing the concept of value, the PSM literature fails to develop an integrated framework for the concept itself (Section 1.3). Numerous writers from other academic disciplines have fortunately explored and developed the concept of value (Sections 4.5 and 4.6). Due to the theoretical breadth of these disciplines, however, it becomes very challenging to suggest one definition over another.

A value-based strategy can be defined as a focussed strategy that pulls from a wide range of characteristics. Treacy and Wiersema (1993) introduce the concept of value disciplines when discussing value-based strategies (Section 2.2). Whilst these value disciplines help with the definition of value-based strategies, they lack substance. Hines, Lamming et al. (2000) developed a concept known as value stream mapping (Section 5.2). In their work they discovered seven types of value: customer responsiveness, timely supply, high quality goods and services, efficient customer responsiveness, timely supply, high quality goods and services, efficient

Figure 7A: Value-based strategy definition matrix

Value Discipline Value Characteristics	Customer Relationship- Driven Provider	Product and Service Innovator	Low Cost Provider
Customer Responsiveness	←→	←→	←→
Timely Supply	←→	←→	←→
High Quality	←→	←→	←→
Efficient Operating Procedures	←→	←→	←→
Lower Prices	←→	←→	←→
Impact on Profit	←→	←→	←→
High Levels of Innovation	←→	←→	←→

operating processes, lower prices, impact on profit and high levels of innovation. Not surprisingly these variables relate closely to the three value disciplines proposed by Treacy and Wiersema (1993)'s work. To help understand and interpret value-based strategies, both concepts are combined by this author. Figure 7A illustrates the resulting "value-based strategy definition matrix". The combination of these two approaches in Figure 7A promises a useful framework for defining and analyzing value-based strategies at different levels within an organisation.

7.2.2 Question Two: Do definitions or interpretations of value within the firm change depending upon one's assumed value chain perspective?

Business acts in two different ways: as a customer (of its suppliers) and as a supplier (to its customers)¹³. "The buy-side" is generally associated with the firm's purchasing and supply management organisation; "the sell-side", with the firm's sales and marketing organisation (Section 4.6). Some may argue that certain parts of the firm have no direct contact with either suppliers or customers. This author (based on the value stream literature in Section 4.6 and process re-engineering literature in Section 5.3) argues that for value to flow uninterrupted to the end customer (i.e. inter-firm value flows), it must also flow uninterrupted across the functions of the firm (i.e. intra-firm value flows). In other words, value must flow smoothly between the buy- and the sell-sides of the firm (Sections 5.3 and 5.4).

The customer of the firm's buy-side is any internal business function or external organisation that uses products and services procured by the firm's supply function (Section 4.5). Using a value-based strategy (Sections 2.2 and 2.3) implies that (a) the firm's strategy is agreed upon by both the buy- and sell-sides of the firm (Sections 2.4 and 2.5) and that (b) each side understands the characteristics the other side associates with that strategy (Sections 3.3 and 3.5). Whenever conditions (a) or (b) are violated, "value gaps" may result which impede the flow of value across the firm's value chain (Sections 4.6 and 5.3)

¹³ Financial broker-dealers in the capital markets usefully label these two roles respectively "the buy-side" and "the sell-side". This author employs this useful terminology in his discussion.

The situation is further complicated within a multi-firm, business-to-business value chain (Sections 4.5). Assume three companies: the buying organisation (“the customer”), the focal organisation (“the firm”), and the selling organisation (“the supplier”). The customer’s buy-side is the interface with the firm’s sell-side. The firm’s buy-side in turn is the interface with the supplier’s sell-side. In addition to conditions (a) and (b) above, using a value-based strategy implies that (c) the customer’s buy-side and the firm’s sell-side understand the characteristics that each side associates with the strategy and that (d) the firm’s buy-side and the supplier’s sell-side do likewise. Whenever conditions (c) or (d) are violated, “value gaps” may result which impede the flow of value across the firm’s value chain.

7.2.3 Question Three: Do definitions or interpretations of value change at different operational / management levels within the value chain?

Different groups within an organisation specialise in different firm activities (Section 2.4). Particular individuals within those groups are deemed accountable for varying degrees of performance of those activities (for PSM see Section 5.4). Responsibility and authority are ideally allocated based upon an individual’s ability to realize successfully some level of the firm’s hierarchy of objectives (Sections 2.4, 2.5 and 3.2). For example, the managing director / chief executive is ultimately responsible for the success of the firm’s overall value proposition (which accounts for the firm’s turnover / revenues); this includes its proper conceptualization. The heads of functional departments are each responsible for their respective group’s contribution towards realising the firm’s value proposition; this includes the configuration / management of functional goals and objectives. The “front-line” employee is responsible for his or her individual contribution towards delivering the firm’s value proposition; this includes efficient and effective operations.

Using a value-based strategy (Section 2.2 and 2.3) implies that (e) the firm’s strategy is agreed upon by the different organisational levels of the firm (Sections 2.4 and 2.5) and that (f) each organisational level understands the characteristics that other levels – or at least the next level with which one immediately interacts – associates with the firm’s value-based strategy (Sections 3.3 and 3.5). Whenever

conditions (e) or (f) are violated, “value gaps” may result which impede the flow of value across the firm’s value chain.

Like question two the situation is further complicated within a multi-firm, business-to-business value chain (Sections 4.4 and 4.5). In addition to conditions (e) and (f) above, using a value-based strategy implies that (g) the individual on the customer’s buy-side interacting with the individual on the firm’s sell-side both understand the characteristics that each side and level associates with the strategy and that (h) the individual on the firm’s buy-side interacting with the individual on the supplier’s sell-side do likewise. Whenever conditions (g) or (h) are violated, “value gaps” may result which impede the flow of value across the firm’s value chain.

7.2.4 Question Four: How might a firm improve its “management” of value?

This author hypothesizes that it would be rare for a firm to have few or no “value gaps” (i.e. for there to be no violations of conditions (a) through (g) above)¹⁴ since there are a plethora of theories and definitions of value in the academic literature (Section 5.1). Even within “applied” business disciplines – finance and accounting for example – there are multiple and often conflicting methods for recording the value of an item (Section 5.1). As a result, most firms’s employees use a confusing jumble of concepts, terminologies and theories of value.

This author asserts that any attempt to consciously “manage value” within the firm requires at a minimum the systematic identification and measurement of how its members understand the principal forms of value. These forms include value conceptualised as an adjective, verb and noun (Section 1.5). Any conceptual model or approach would of necessity be (a) cross-functional (b) hierarchy-spanning and (c) firm boundary-spanning. This author advances such a conceptual model to which he now turns.

¹⁴ Based upon Zeithaml, Parasuraman et al. (1990) who provide an extensive list of potential value gaps in the firm. See Section 6.4.

7.3 Conceptual value gaps model

Based on an extensive literature review (Table 7E) following the value first principles reviewed in Chapters Two through Six, this author constructed a conceptual model describing how value moves through and between organisations. The model was built on a principle suggested by Parasuraman, Zeithaml et al. (1985) from research work they had conducted in service operations theory¹⁵. This theory offers a useful construct – its primary concern is the trade-off between customer perceptions and expectations. In other words a customer's perceptions of the value delivered are compared against their initial (and constantly changing) expectation of that value¹⁶. Parasuraman, Zeithaml et al. (1985) suggest that failure to meet perceptions and expectations may lead to value gaps within the service provider, i.e. a misunderstanding within the organisation of what the customer wants. They argue that closing these gaps will create customer satisfaction.

Figure 7B represents this author's view of how value is defined and translated through the firm. The model depicts three inter-related value sub-processes. Value conceptualisation concerns the (re) definition of the firm's value proposition to customers; this sub-process is "owned"¹⁷ by the managing director / chief executive of the firm. Value configuration concerns the translation of the value proposition into a series of goals and objectives across the firm; this sub-process is "owned" by the functional heads of the firm. Figure 7C illustrates that the functional heads are each responsible for translating the firm's value proposition into a set of aligned goals and objectives within each of their respective functions. Value implementation concerns the tangible manifestation of the firm's value proposition, i.e. the creation and delivery of the firm's products and services. Whilst this sub-process is "owned" by everyone in the firm, it is realised by front-line employees.

¹⁵ See Section 6.4 for a discussion of service operations.

¹⁶ Gale (1994) links value expectations to the stages of a product's / service's lifecycle and to the supplier's competitive performance. See Section 6.3.

¹⁷ Davenport (1993) advances the notion of "process ownership". 'One of the most important roles in individual [process reengineering] projects is that of the process "owner"... The owner has ultimate responsibility for a process. The cross-functional nature of many key business processes dictate that the process owner be at a high enough level to ensure authority over the process and all its interfaces. There may be no logical candidate for this role; he or she may simply have to be appointed by the sponsor of the change initiative' Davenport (1993:182).

Table 7E: Relationship between the conceptual model and the literature review

Section	Value First Principles in Supply Management	Related topic areas / literature	Key learning(s)	Relevance to model
2.1	Align purchasing strategy and corporate strategy	Competitive advantage	Competitive advantage is the unique configuration of interlinked activities, actor bonds and critical resources the firm uses to deliver a superior value proposition to enough customers at a low enough cost generate wealth.	The model is based on three mutually reinforcing subprocesses (value conceptualization, configuration and implementation) to deliver a superior value proposition.
2.2	Align purchasing strategy and corporate strategy	Competitive strategy; generic strategies; value disciplines	Competitive strategy is the set of actions taken by management to gain competitive advantage by increasing the degree of congruence between a firm and its adopted value-based approach to competition.	Value configuration entails establishing goals and objectives -- making choices -- that are resonant with the firm's value proposition and that are supported by the firm's resources and activities.
2.3	Align purchasing strategy and corporate strategy	Strategic management process	Strategic management is the process of ordering a firm's internal and external activities, resources and actors in accordance with the firm's competitive strategy. There are multiple schools of competitive strategy.	Value as an integrated process addresses all three of the above sub-processes. The model accommodates alternative schools of competitive strategy.
2.4	Align purchasing strategy and corporate strategy	Cascading objectives; strategic alignment	Strategic alignment is the degree of congruence between a firm's strategic management process and its adopted value-based approach to competition.	Value as an interactive process seeks congruence between the three sub-processes. Congruence is reflected by the absence of value gaps.
2.5	Align purchasing strategy and corporate strategy	Policy deployment (<i>hoshin kanri</i>)	Policy deployment cascades strategies up and down all levels of the organisation.	Value as a process entails the cascading of value definitions up and down all levels of the organisation.
3.1	Balance multiple objectives	Single vs. multiple firm objective function(s); contracts; behavioural economics; behaviouralism; production function; transaction costs; Total Cost of Ownership (TCO)	The firm is a collection of stakeholder groups with multiple and (likely) conflicting objectives; these stakeholder groups negotiate an agreed upon set of objectives which collectively all individuals satisfy rather than maximize.	The firm is a collection of stakeholder groups with multiple and (likely) conflicting definitions of value; these stakeholder groups <i>may</i> or <i>may not</i> consciously and explicitly agree upon shared definitions of value.
3.2	Balance multiple objectives	Satisficing vs. maximising; stakeholders; bounded rationality; hierarchy of needs	Competitive strategy is comprised of a hierarchy of multiple sub-strategies of the various firm functions. Organisational units satisfy rather than maximise/optimize the prime competitive strategy.	A firm's definition of value is comprised of a hierarchy of multiple definitions of value held by its organisational groups. PSM practices may not in fact support the firm's prime strategy even though the PSM group may perceive itself as adding value.

3.3	Balance multiple objectives	Balanced Scorecard	The Balanced Scorecard is a tool to prioritise collectively a complete and integrated set of performance objectives which all members of an organisation seek to accomplish. The Balanced Scorecard mirrors previous quality frameworks.	The model is a tool to translate comprehensively the set of value definitions used by the members of an organisation. The model is based on previous frameworks drawn from the literature.
3.4	Balance multiple objectives	Stakeholder approach to management	Authors increasingly assert that the value chain should be interpreted in stakeholder terms yet the stakeholder approach to firm management is generally not supported by Anglo-American economics and laws.	Stakeholder groups need to understand which definitions of value are mutually agreed upon and elevated (and which are not). This is especially important in the UK and US where firms often strive to 'Maximise shareholder value' above all else. Explicitly translating other definitions of value into shareholder value is critical.
3.5	Balance multiple objectives	Balanced Scorecard and supply management	PSM can use the Balanced Scorecard to align its activities with the firm's overall value chain strategy.	PSM can use this thesis's model to test alignment of its definition of value with those of others in the firm / value chain.
4.1	Adopt a systems perspective	Systems thinking; hard vs. soft systems thinking; appreciative systems	The whole is greater than the sum of its parts. A firm may be viewed as a learning system.	Value as a process is greater than any one of its parts. The value management system incorporates value's definition as a noun, verb, and adjective.
4.2	Adopt a systems perspective	Systems thinking and the balanced scorecard; single- vs. double-loop learning; first vs. second order change	Strategic management differs from tactics management. First order change / single loop learning differs from second order change / double loop learning.	Value as a process is more than just a measurement system. It encompasses processes which are different in their underlying usage of the term value. Value as a verb is the sub-process used by two or more individuals (a) to understand the underlying variable (e.g., vision and mission) governing their actions; (b) to identify matches-mismatches between the individuals' expectations of those variables that enable/prevent joint action; and (c) to adjust expectations so that a match is found (thereby enabling action).
4.3	Adopt a systems perspective	Systems thinking in strategic management	Select authors have advanced integrated approaches to strategic management.	The model represents an integrated approach to value.
4.4	Adopt a systems perspective	Systems thinking and the theory of the firm	There are multiples theories of the firm	Not all theories of the firm extend to the systems level. Multiple theories of the firm are required yet there is no systematic way to blend multiple schools' implicit definitions of value (which are different). A model to test alternative definitions of value is needed at the systems level.

4.5	Adopt a systems perspective	Systems thinking and supply chain management; business system; commercial / value / supply chain; buy-side vs. sell-side	PSM should operate according to a systems perspective.	A model is need by PSM to test how closely its definitions of value mirror those of others at the systems level (firm and supply chain).
4.6	Adopt a systems perspective	Systems thinking and value management	Multiple rubrics exist to categorize processes within a value management system.	The model outlines comprehensively the elements that should be included in any value management system.
5.1	Ensure that value flows across the system	Economic theories of value	There are multiple economic schools of value with conflicting views of what value is.	Economics includes three views of value: preference-, exchange- and production-based definitions. A firm operates using all three viewpoints. Yet there is no systematic way to blend multiple schools' definitions of value (which are different). A model to test alternative definitions of value is needed by the firm.
5.2	Ensure that value flows across the system	Total quality management; continuous improvement; lean production; value-add; value proposition; value offering	There is no consensus definition of quality in the literature. Quality is most commonly used as a noun due to its origins in manufacturing and its associated production-based definitions of value.	Strategic transformation is the process of reconfiguring (value as a verb) the value-adding activities within a firm's value stream in order to improve the translation of customer value (value as an adjective) into value offerings (value as a noun). Value management is the process used by a firm to co-ordinate value-adding activities within its value stream(s) in order to increase value alignment. Value alignment is the realization of customer value.
5.3	Ensure that value flows across the system	Business process re-engineering; Process redesign; cross-functional management; value flow; value stream; value alignment; value gaps	Value should flow uninterrupted across the value stream. Interruptions of value flows can be considered gaps and misalignment.	The model tests for the presence of value gaps across the firm's functions.
5.4	Ensure that value flows across the system	PSM and value flows; relational competence analysis; external resource management; lean supply	Lean supply is built upon the principles of quality and lean thinking.	This thesis's model is built upon the principles of quality and lean thinking.
5.5	Ensure that value flows across the system	Reassigning value stream activities; value innovation	Reassignment of value chain activities by customer and supplier challenges traditional views of customer and supplier value	This thesis's model is built upon three underlying processes reflecting value's usage as a noun, verb and adjective that can be used to assess traditional as well as emerging views of value.

6.1	Use ultimate customer's perceptions to understand value	Value typology; value hierarchy; means-ends models	There exists a hierarchy of values	Value as an adjective precedes value as a noun based upon the hierarchy of values.
6.2	Use ultimate customer's perceptions to understand value	Value assessment (societal / organisational / individual determinants)	Different cultures, organisations and individuals interpret differently the same objective phenomena. The outcomes of the same value assessment process are culturally, organisationally and individually determinant.	Value translation is required whenever individuals, groups, and firms interact.
6.3	Use ultimate customer's perceptions to understand value	Customer satisfaction; customer (value) perceptions	Customer satisfaction and customer (value) perceptions are context specific (extrinsic) and are based on perceptions (intrinsic).	The model references Zeithaml (1988)'s means-end model for value which includes both (objective) extrinsic product attributes and (subjective) consumer perceptions.
6.4	Use ultimate customer's perceptions to understand value	Goods vs. services; service operations; customer service expectations; customer service perceptions; service gaps	Service operations literature differentiates between perceived versus actual service quality.	The model is built upon Zeithaml, Parasuraman et al. (1985)'s conceptual model of service quality which measures gaps between expectations of desired service quality and perceptions of received service quality.
6.5	Use ultimate customer's perceptions to understand value	Value gaps; strategic supply management	There is no consensus view whether PSM helps secure competitive advantage for the firm	Value appears to be the key element in assessing PSM's strategic role in organisations

Figure 7B: Translation of value across a firm

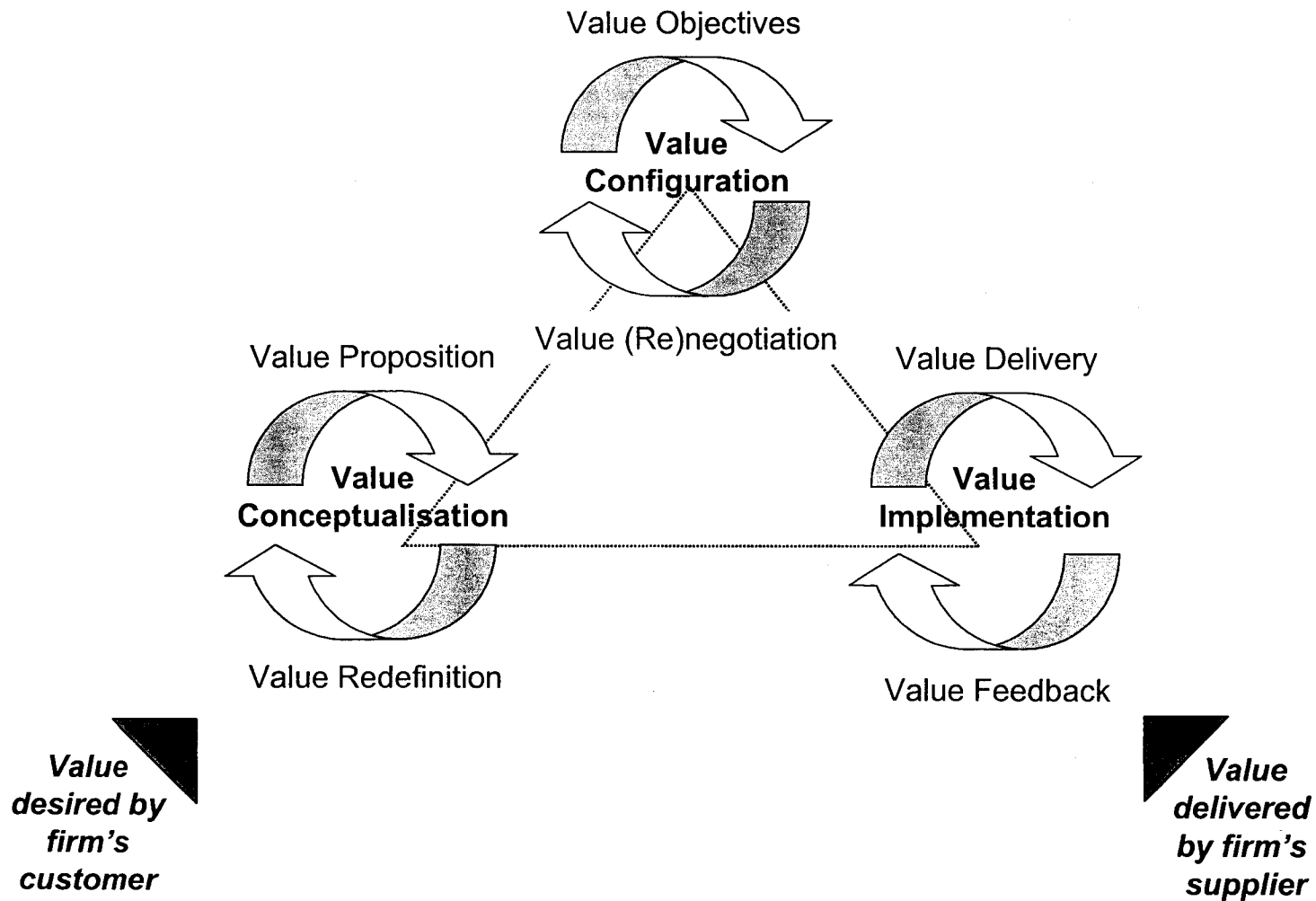


Figure 7C: Translation of value across a firm's functions

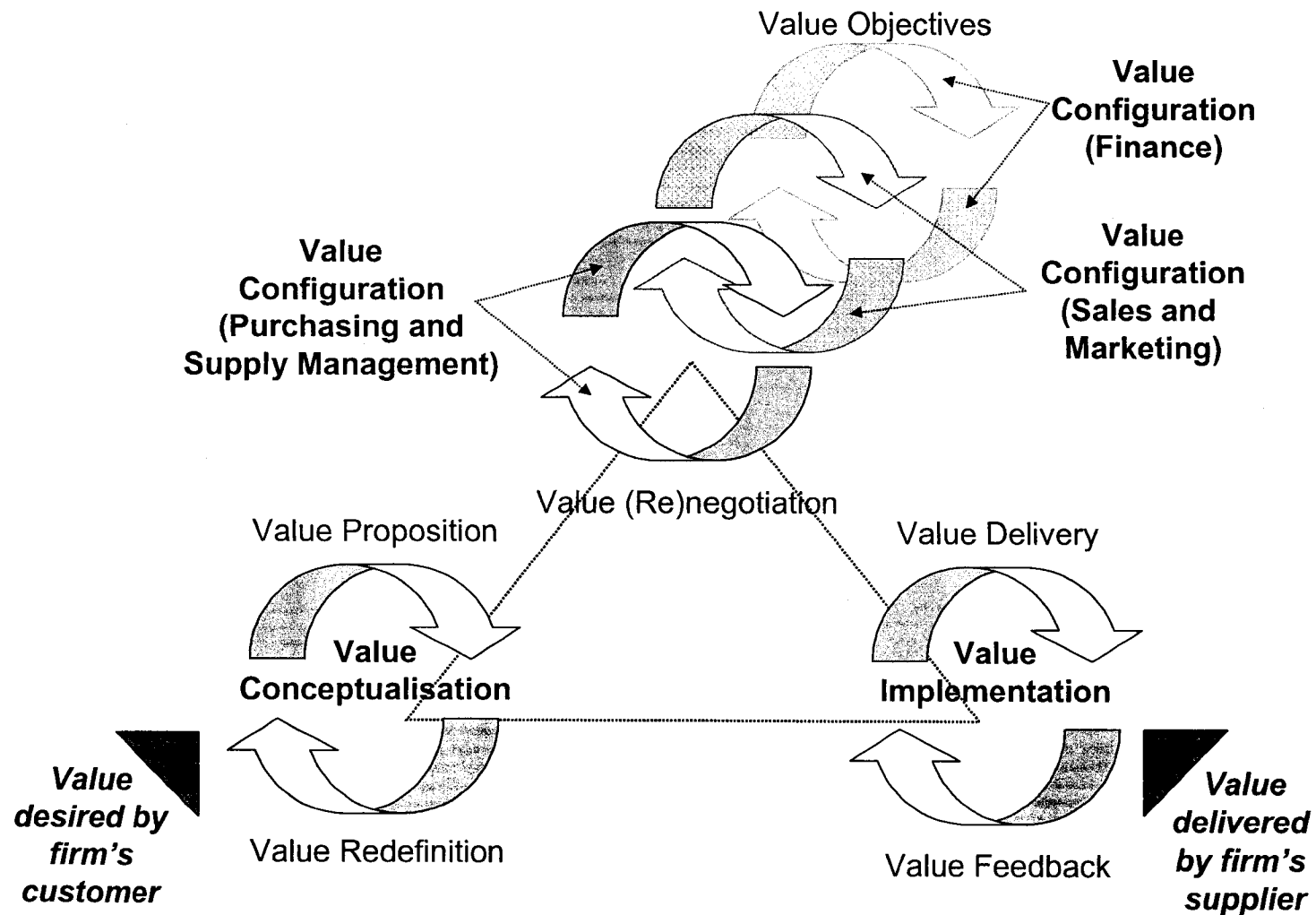


Figure 7D: Measuring conflicting definitions of value within a firm

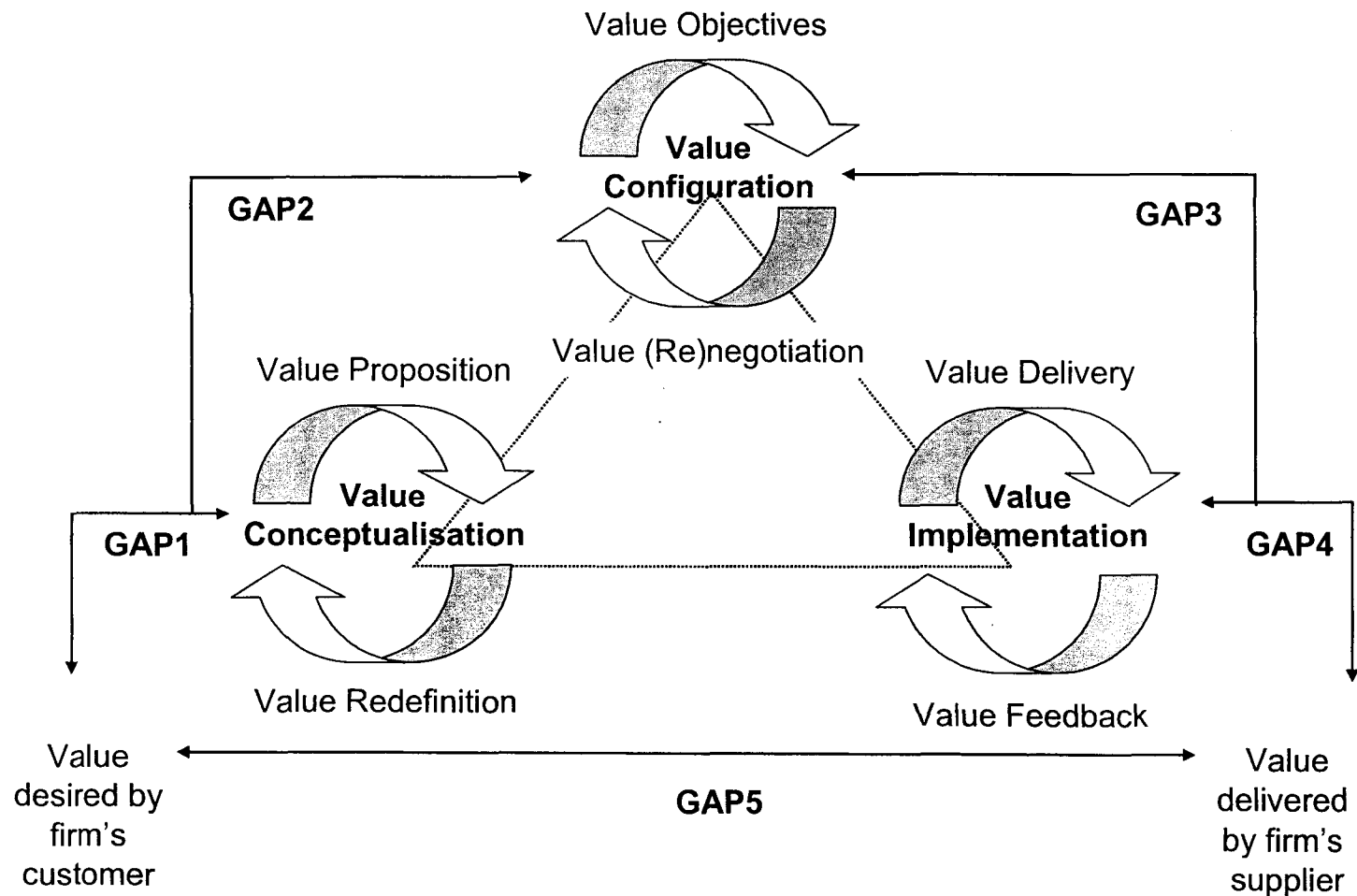


Figure 7E: Translation of value across multiple firms

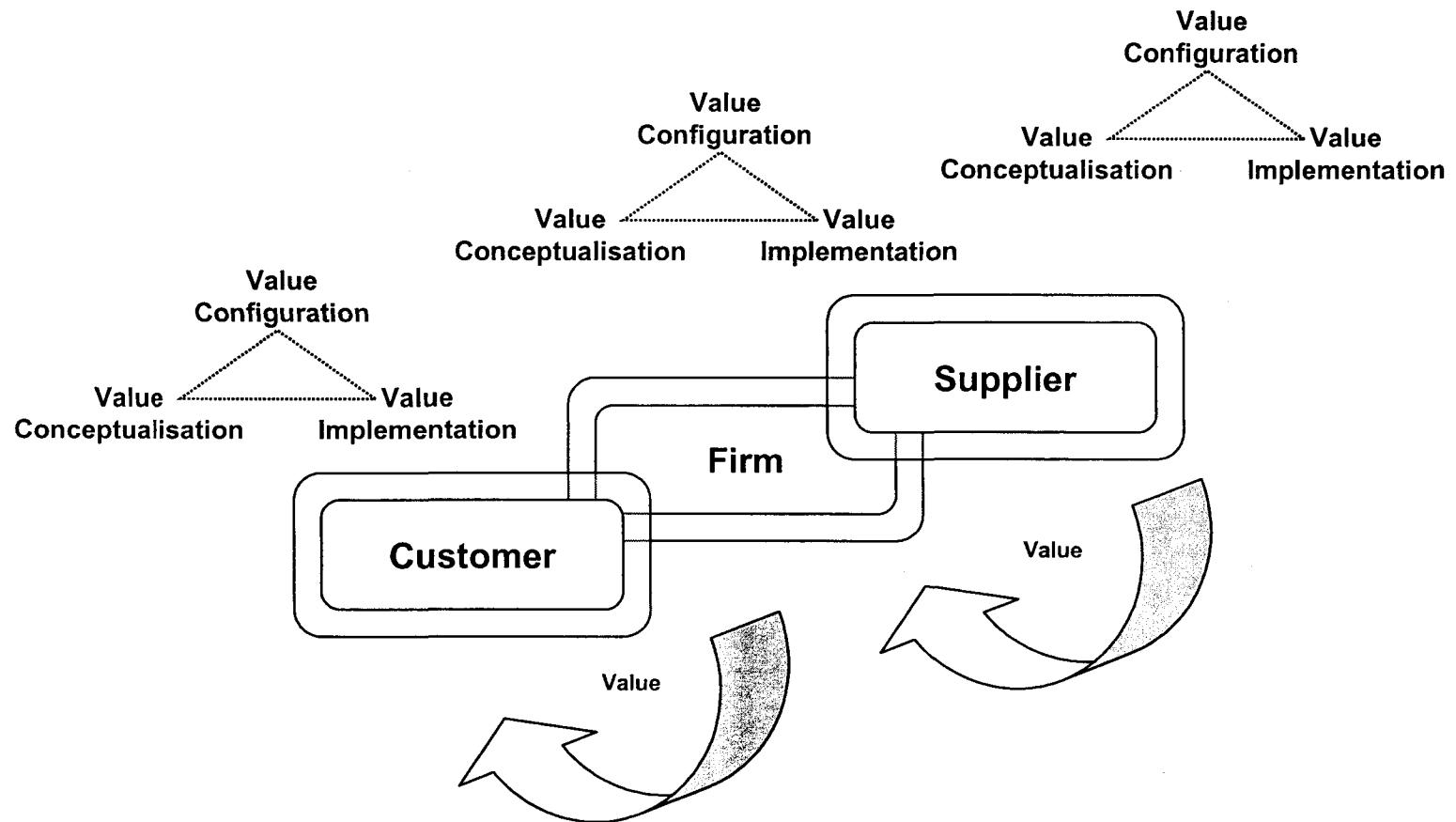
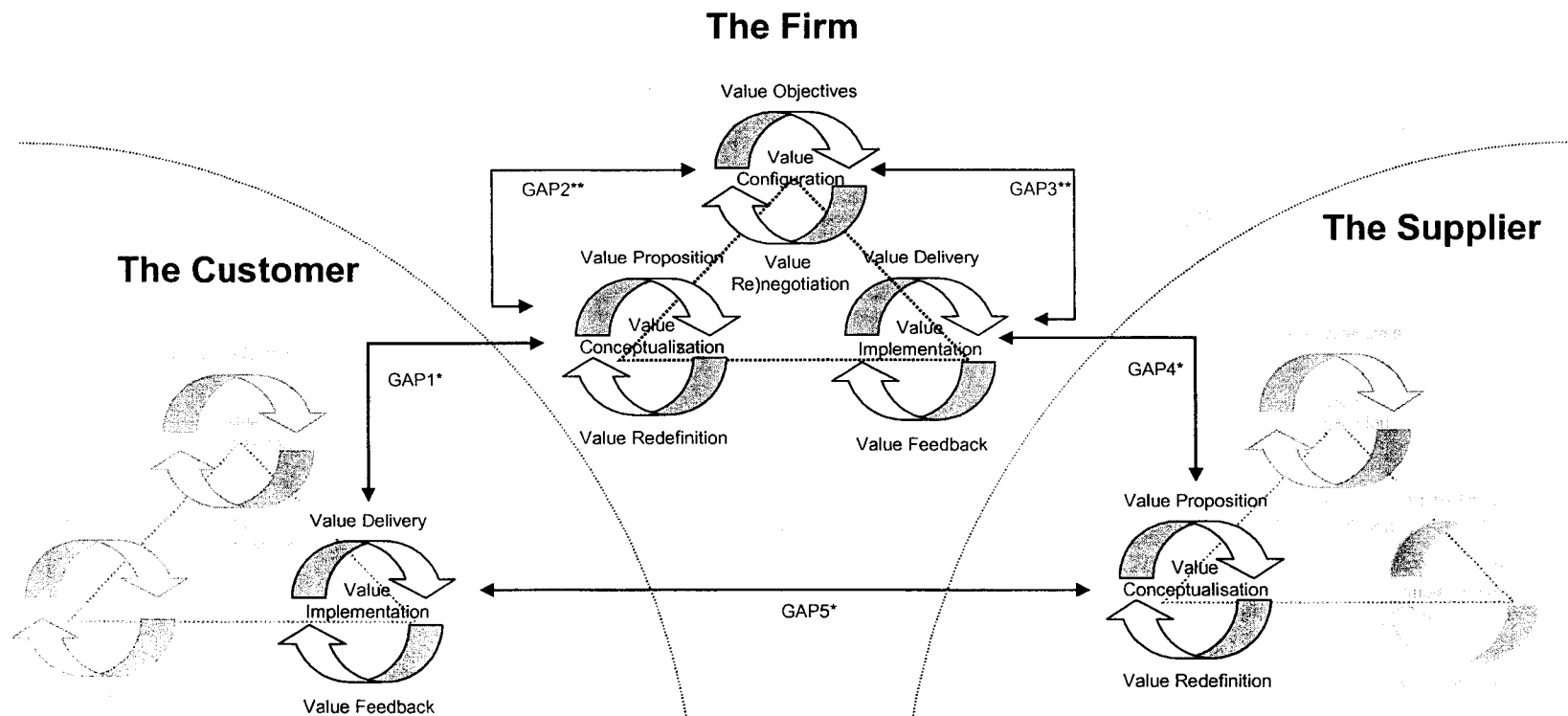


Figure 7F: Measuring conflicting definitions of value across the value chain



Notes:

* Based on Sayer(2000), GAPS 1,4 and 5 are examined using post-objectivist / interpretivist case studies. See discussion in Section 8.1 and Table 8A.

** Based on Sayer (2000), GAPS 2 and 3 are examined using objectivist / post-objectivist surveys as well as post-objectivist / interpretivist case studies. See discussion in Section 8.1 and Table 8A.

Interestingly these three inter-related sub-processes also reflect value's usage as an adjective, verb and noun. Value conceptualization involves the (re)definition of a firm's value proposition; this is the realm of value as an adjective¹⁸. Value configuration involves the (re)negotiation of a firm's goals and objectives; this is the realm of value as a verb¹⁹. Value implementation involves the delivery / receipt of a firm's products and/or services; this is the realm of value as a noun²⁰. All three forms of value are referenced in the translation process described by this author's model.

Figure 7D illustrates the five value gaps that may result whenever conditions (a) through (g) described in Section 7.2 are violated. Gaps 2 and 3 represent intra-firm misalignment of value definitions whilst Gaps 1 and 4 represent inter-firm misalignment. Gap 5 represents misalignment of definitions across a triad of firms. As Figure 7E illustrates, each company in the triad manages its own value definition process whilst simultaneously attempting to co-ordinate value definitions across the entire value chain. Figure 7F demonstrates that inter-firm value Gaps 1, 4 and 5 are actually the linkages between different sub-processes across different firms in the triad. These linkages trace the gaps between perceptions and expectations of value as value definitions are translated by the counter parties in a procurement transaction. The mixture of levels, definitions, expectations and perceptions in the conceptual model raise several research methodological issues to which this author now turns.

7.4 Research philosophical issues endemic to management research

According to the principles of ontology, epistemology and methodology, a researcher's philosophy may be deemed "sound" by examining the *appropriateness* of the analytical methods he or she chooses. Recall from Section 7.2 that the objective of this study is the development of a process and framework synthesizing existing academic knowledge that will provide managers with a practical approach for **managing value-based strategies**. Easterby-Smith,

¹⁸ Recall that Lanning (1998) describes the value offering as the materialization of the customer's preferences and experiences (Section 4.6) and that the subjectivist/relativist school of economics defined value as utility (i.e. preferences) which is a subjective measure (Section 5.1).

¹⁹ Recall that this author contrasted "soft systems thinking" / "double-loop learning" / "second order strategic change" with "hard systems thinking" / "single-loop learning" / "first order change" in Sections 4.2 and 4.3. Value conceptualised as a verb is based upon the former.

²⁰ Recall that production-based definitions of value in economics conceptualise value as a noun (see Section 5.1).

Thorpe et al. (1991) cite Morgan and Smircich (1980:491) who note that the appropriateness of a research approach ‘derives from the nature of the social phenomena to be explored’. According to this line of reasoning, this thesis’s subject (emboldened above) should determine this author’s research philosophy.

Unfortunately, this determination is complicated by the fact that there are multiple views in the literature of what constitutes “strategy”²¹, “value”²², and “management”²³.

There is some confusion between what management is, and what it ought to be.... Each theory has implications about the questions that are worth researching, and the methods that should be used to do this. Easterby-Smith, Thorpe et al. (1991:4)

Management research is, as a result, open to a great deal of interpretation. Whitley (1984) supports this statement, observing the “fragmented state of management studies”. The discipline is ‘characterised by fragmentation, proliferation of diffuse and unconnected intellectual standards, goals and techniques and multiple interpretation of research results’ (Whitley (1984:342)).

Perhaps *credibility* may serve as a better measure of the soundness of the research philosophy adopted by this author. Easterby-Smith, Thorpe et al. (1991) consider *research credibility* to be a product of the research’s validity²⁴, reliability²⁵, and generalisability²⁶. Unfortunately they note that the meanings of these three terms vary with the researcher’s adopted philosophical viewpoint (Table 7F). This follows from Easterby-Smith, Thorpe et al. (1991)’s claim that ‘the decision to study a topic in a particular way always involves some kind of philosophical choice about what is important’. Huff and Roger (1987:211-236) reach the same conclusion.

²¹ This author discusses alternative definitions of competitive strategy (and presents the definition used in this thesis) in Section 2.2.

²² Alternative definitions of value are examined throughout the literature review.

²³ See Section 2.3. where this author discusses alternative definitions of strategic management (and presents the definition used in this thesis).

²⁴ Hussey and Hussey (1997:57) define validity as ‘the extent to which the research findings accurately represent what is really happening in the situation’.

²⁵ Hussey and Hussey (1997) define reliability as repeatability. ‘If a research finding can be repeated, it is reliable. In other words, if you or anyone else were to repeat the research, you or they should be able to obtain the same results’. Hussey and Hussey (1997:57)

²⁶ Hussey and Hussey (1997) cite Vogt (1993:99) who defines generalisability as ‘the extent to which you can come to conclusions about one thing (often a population) based on information about another (often a sample)’.

Table 7F: Issues of research credibility based upon the adopted philosophical viewpoint Source: Easterby-Smith, Thorpe et al. (1991:27)		
	Positivist viewpoint	Phenomenological viewpoint
Validity:	Does an instrument measure what it is supposed to measure?	Has the researcher gained full access to the knowledge and meanings of informants?
Reliability:	Will the measure yield the same results on different occasions (assuming no real change in what is to be measured)?	Will similar observations be made by different researchers on different occasions?
Generalisability:	What is the probability that patterns observed in a sample will also be present in the wider population from which the sample is drawn?	How likely is it that ideas and theories generated in one setting will also apply in other settings?

A thesis's subject matter, research approach, and credibility thus appear to be inter-related. Maxwell (1996) claims this to be the result of investigating qualitative matters. He asserts that quantitative research design is sequential in nature whereas qualitative research design is interactive. Maxwell (1996) proposes rejecting the traditional, sequential research design model and adopting instead a "garbage can model"²⁷. 'Research design does not begin from a fixed starting point or proceed through a determinate sequence of steps; [Maxwell's model] recognises the importance of interconnection and interaction among different design components' Maxwell (1996:3). See Figure 7G. This author follows the "interactive" research design model advanced by Maxwell.

There appears to be no absolute standard for determining the best research philosophy to adopt when investigating a topic such as value that crosses opposing philosophical viewpoints. For example, value's definitions range from the very objective and quantitative (value as a noun) to the very subjective and qualitative (value as an adjective). This poses a methodological conundrum for, as Smith (1983:10) notes, 'In quantitative [positivist] research, research facts act to constrain our beliefs; while in interpretive [phenomenological] research beliefs determine what should count as facts'. The choice of measure for "value" changes depending upon the context of its usage, i.e., vis-à-vis the three value sub-processes (conceptualisation, configuration and implementation) identified by this thesis's conceptual model in Section 7.3. It is clear that no single research philosophy is appropriate to investigating and developing models for managing all

²⁷ Maxwell (1996:2) notes that Martin (1982) developed what he called the "garbage can model" of research design. It was based on Cohen, March and Olsen (1972)'s influential garbage can model of decision making. In this model, research elements swirl around the garbage can or decision space of the particular research project.

Figure 7G: An Interactive Model of Research Design
Source: Maxwell (1996:7)

Figure removed

three of these value sub-processes. A heterodox research philosophy is therefore warranted and an eclectic methodological approach called for by this study. This approach, labeled “realism” by Hunt (1992), is well supported by the literature. Denzin (1970) claims that the use of multiple methodological approaches increases the validity and reliability of management research. Huff and Roger (1987:211-236) support Denzin (1970): ‘We believe that the field [of strategy process research] will be best served by cycling back and forth between the qualitative and quantitative methods, between comprehensive and focused studies, and between rational and political assumptions’. Crompton and Jones (1988) in Bryman (1988:72) note:

In organisational research it is not a mutually exclusive decision between quantitative and qualitative measurement. In reality it is very difficult to study organisations without using both sorts of methods. Crompton and Jones (1988:72)

Easterby-Smith, Thorpe et al. (1991:31) also support a mixed methodology (i.e., “realism”). ‘Increasingly, authors and researchers who work in organisations and with managers argue that one should attempt to mix methods to some extent, because it provides more perspectives on the phenomena being investigated’. Ramsay (1995:402) explicitly recommends that researchers in the field of purchasing ‘adopt a form of triangulation²⁸ involving the combination of small-sample causal [i.e. an interpretivist research epistemology] and large-sample statistical analyses [i.e., a positivist research epistemology] of the same phenomena, with the strength of one approach being used to compensate for the weakness of the other’. Ramsay (1998) further advocates using a mixed methodological approach i.e., “realism”, to improve the validity and reliability of conclusions²⁹ drawn from open systems³⁰ research.

²⁸ Hussey and Hussey (1997:74) cite Denzin (1970:297) who defines “triangulation” as ‘the combination of methodologies in the study of the same phenomenon’. Easterby-Smith, Thorpe et al. (1991) assert four types of triangulation: data, researcher (investigator), methodological, and theoretical. Ramsay (1998:169) supports this assertion describing “triangulation” as ‘the practice of using more than one source of *data*, each frequently being obtained using different collection *methods*, or alternatively, analyzing the same data using more than one *theory* or model with a view to lending credibility to any conclusions, *interpretations* or generalizations’ [emphasis added].

²⁹ Ramsay (1998) notes: ‘The [critical realist] conclusion [is] that in open systems, where regularities appear at all, there is logically no way of knowing if there are indications of causal effects, and furthermore, that an absence of regularities is not a reliable indicator of the absence of causal relations. Without the ability to experimentally isolate the variables being studied, and thus create closed, or at least quasi-closed systems after the fashion of experiments in the natural sciences, the social sciences can never be sure of having correctly identified cause and effect’. Ramsay (1998:168)

³⁰ Ramsay (1998) notes: ‘Positivist methodology suggests that we can/should examine the world with a view to identifying event regularities, and from these, causal relations. However, even if we assume that we have circumvented the multifarious difficulties of obtaining valid, reliable data concerning human constructs and behaviour, this only remains a sensible strategy if the researcher can be sure that the event-regularities uncovered in that data actually indicate the existence of causal relations. In the natural sciences this certainty is sought after by experimentally trying to create “closed” systems; that is systems in which all influences other than chance and the causal relation that is being examined, sought or tested have been eliminated. According to the critical realist approach [e.g. Sayer (1984)] this is possible only if the following two conditions are in place: (1) There must be no change or variation (e.g. impurities) in the object possessing

7.5 Selected research approach and rationale³¹

Platts (1993) indicates three shortcomings to strategy research in general; these shortcomings are discussed by others in the literature:

1. A poor conceptual base (Camerer 1985; Hill 1987);
2. A low level of empirical work and theory testing (Camerer 1985; War, Keong and Snyder 1990);
3. A lack of relevance to the real world (Susman and Evered 1978; McGuire 1986).

These three problems further compound the methodological issues discussed in Section 7.4. This author's chosen research approach (Figure 7H) aims to eliminate or at least to minimise the impact of these research problems and issues. The rationale for his approach is as follows:

The research process must link to existing frameworks:

(Camerer 1985) observes that strategy research fails when it is not built on established theories. (Hill 1987) also notes that research is often not based on sound methodologies. This study's research questions (Section 7.2) and conceptual model (Section 7.3) were generated based upon an extensive review of the literature guided by first principles. They are therefore rigorously grounded in existing theory.

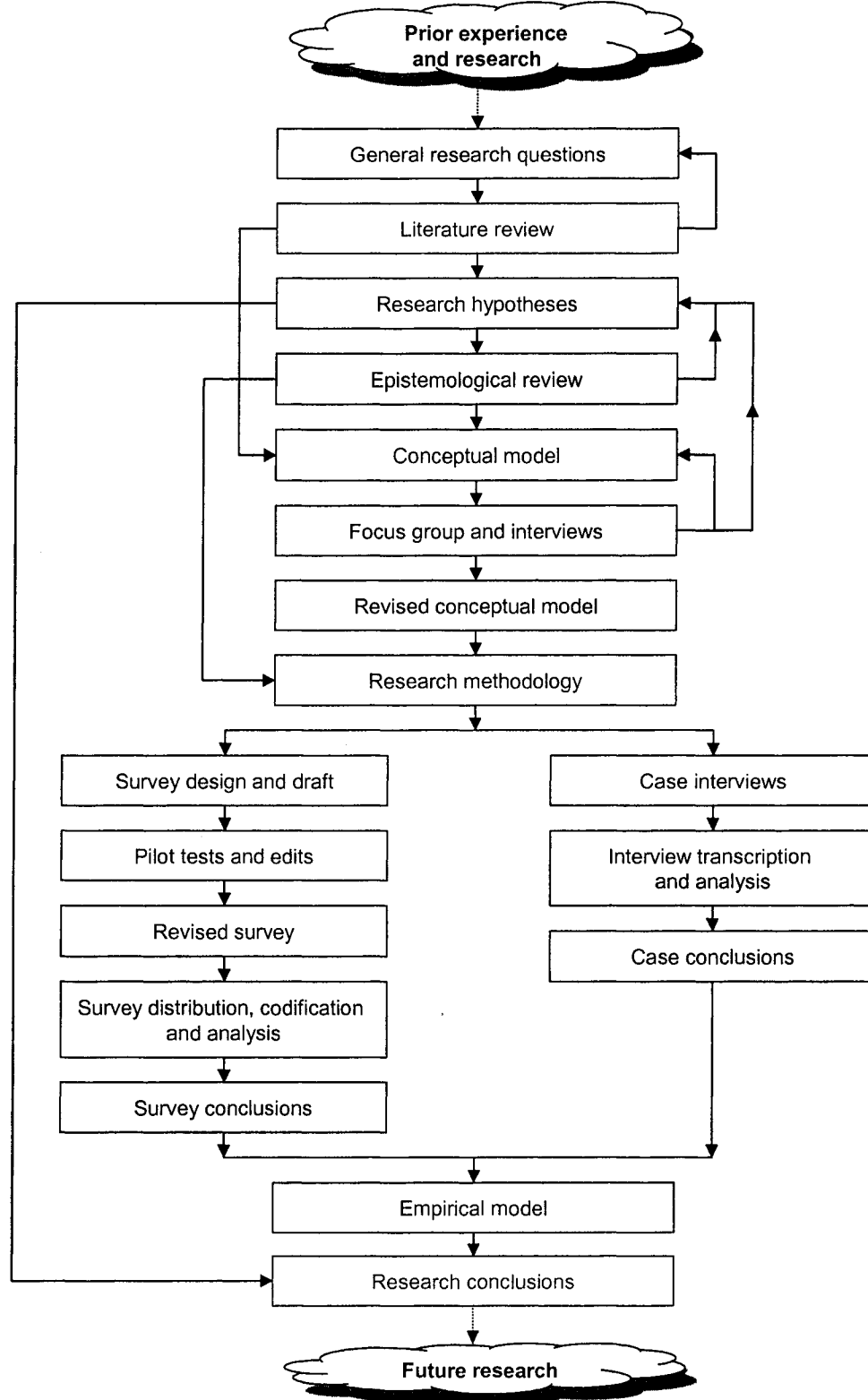
There must be adequate empirical testing and certification of any proposed process:

This study combines (a) rationalist testing of existing theory via a critical literature review with (b) empirical testing of a conceptual model using a process of triangulation. Triangulation was achieved by combining knowledge gained from (1) a focus group with supply chain executives in the U.S.; (2) individual exploratory interviews of eight McKinsey & Company consultants in the U.S.;

the causal powers if mechanisms are to operate consistently. This is termed by Bhaskar the "intrinsic condition for closure". (2) The relationship between the causal mechanism and those of its external conditions which make some difference to its operation and effects must be constant if the outcome is to be regular (the extrinsic condition for closure) Sayer (1984:122)). The problem for the social sciences is that the systems they study are never closed as defined, but are instead, always and everywhere "open" in nature'. Ramsay (1998:168)

³¹ This author's review of his selected research approach (Section 7.5) and potential research pitfalls (Section 7.6) owes much to methodological discussions with his PhD research supervisor, Paul Cousins, and to Chapter 5 of Cousins (1994)'s doctoral thesis.

Figure 7H: Research Approach



(3) quantitative analysis of a large sample questionnaire survey posted to U.K and the U.S. companies; and (4) qualitative analysis of interviews with three U.K. and three U.S. organisations.

The results of the research must be relevant to the world of the PSM professional:

Practitioners and academics have both expressed great interest in the results of this study. A U.S. industry organisation (NISCI) highlighted the importance of this author's research. The Chicago office of consultancy McKinsey & Company, former employer of this author, was sufficiently interested in the study to have funded this author's primary research. *Academe* have noted the current gaps in the empirical and theoretical knowledge about managing value-based strategies³²; academics have expressed to this author great interest in the study. This author's research is therefore timely and highly relevant.

This author's chosen research design (i.e., "realism") combines quantitative and qualitative empirical methods. These methods are emboldened in Table 7A and noted above. This author describes in greater detail below the four research methods employed.

Practitioner focus group:

On Tuesday 19 October 1999 this researcher discussed the model with supply management executives attending the second symposium of the National Initiative for Supply Chain Integration (NISCI)³³. Attendees included senior executives to mid-level managers responsible for the supply management functions within their organisations. These organisations represented a diverse range of industries. See Table 7G.

³² This author presented the conceptual model and preliminary research results to academics attending the 2002 IPSERA Conference at the University of Twente (Eindhoven, Netherlands) on 26 March 2002. In ensuing conversations, attendees expressed interest in this author's 'final definition of value', his literature review, and the final research results. This author notes that the *Academy of Management Review* will publish a special issue in May 2003 dedicated to such questions as: What is valuable? Who values what? Where does value come from? How is value created? Where does value reside? How are (or should) new value creation activities be managed and co-ordinated. See call for papers in July 2002 *Academy of Management Review* (27) 3: 474-475.

³³ See www.nisci.org.

Table 7G: NISCI Symposium II Attendees/Organisations 19-20 October 1999 Host: Intel Corporation Location: Chandler, Arizona		
Attendee	Position	Organisation
Antosz, Steve	Unknown	Daimler-Chrysler Corporation
C _z ²⁺ (see Appendix B)	Director, Supply Management Planning	Company Z
Doyle, Mike	Consultant	NISCI
Edwards, Donna	Materials Strategic Programs Manager	Intel Corp.
Jap, Sandy	Assistant Professor	MIT Sloan School of Management
Josephson, Paul	Group Procurement Coach	The Trane Company
Kwiatkowski, Ed	President	Supply America Corp (a United States Department of Commerce organisation)
Novak, Paul	President	National Association of Purchasing Management (NAPM)
Parker, Bob	Executive Director	NISCI
Rogers, Steve	Director, Technology Purchasing	Procter & Gamble Co.
Swan, Andrew	Ph.D. Student	University of Bath School of Management
Trimmer, Jeff	Director of Operations and Strategy, Procurement and Supply	Daimler-Chrysler Corporation
Walsh, James	Vice President, Manufacturing	AK Steel
Zimdars, Leroy	Unknown	Harley-Davidson Motor Co.

The one hour discussion was audio taped and transcribed. The attendees supported this author's model with minor corrections (which were subsequently incorporated). They also expressed a strong need for "a robust model" to help them, and their supply management organisations, understand the many meanings of "value". For example, Bob Parker (the Executive Director of NISCI), asserted:

I would bet that we can't go around this table and define that term [value]. We use the term by saying 'Well value ought to be flowing'. Yes indeed. [And] it's my value, it's flowing, I'm happy. But I'm the only one who will know I'm happy. So there's a problem. I think [value] needs a definition ... so that people can focus more, more precisely on what we actually need. Are there ten dimensions or seven dimensions or twenty dimensions to value and what are they? And if we knew, if you broke those apart like you did in this wonderful model [inaudible] then maybe we could run the model through the eight dimensions or whatever, ten dimensions of value, and say 'this is how you might go about thinking more robustly about that value'. ... And I think we need this desperately.

Jeff Trimmer (Director of Operations and Strategy for Procurement and Supply at DaimlerChrysler Corporation) recounted:

You know, even in our own experience, each one of us can think about it, where we thought we had a deal and we shook hands and had dinner and a beer. And son of a gun [inaudible] ... we're having the meeting that we all know we've had a thousand times. And it's the meeting [that proceeds] where:

[Speaking to the left]: 'I said one, two, three'.

[Speaking to the right]: 'I heard you say one, two, three. I wrote that down'.

[Speaking to the left]: 'Well just a minute! What does one, two, three *mean* to you'?"

[Speaking to the right]: 'We both agreed and shook [hands] on one, two, three'.

Well my one, two, three and that person's one, two, three are totally different. You don't even get to the cultural problems before this becomes a geometric problem. And then when you throw cultural differences in there [he sighs].

These comments suggest that supply management executives are encountering difficulties in accurately identifying, measuring and recording value.

Consultant (subject matter experts) interviews:

Table 7H: Exploratory interviews of McKinsey & Company consultants			
Interviewee	Title	Nationality	Date
Keck, Tom	Senior Consultant	US	August 1999
Keedy, Jennifer	Junior Consultant	US	August 1999
Lal, Shyam	Senior Partner	India	September 1999
Mathews, Ben	Consultant	US	August 1999
Naor, Daniel	Partner	France	October 1999
Nelles, James	Consultant	US	November 1999
Semaca, Nick	Senior Partner	US	August 1999
Spencer, Richard	Associate Partner	UK	October 1999

This author conducted exploratory interviews of eight McKinsey & Company consultants who were members of McKinsey's Purchasing and Supply Management / Supply Chain Practice. These consultants represented a range of positions/skill levels and nationalities. See Table 7H. Each interviewee was asked to participate in a discussion of 'managing value-based supply chain strategies' that would last twenty to thirty minutes. At the start of each exploratory interview, the interviewee received a copy of this author's conceptual model; this author then asked the interviewee to direct the conversation for the remainder of the session³⁴ wherever they saw fit. This author stated that they could, for example, ask him questions about the research, comment on the model, edit/redraw it, etc. The discussions were intentionally not recorded to increase the degree of informality. Drawings and notes were collected at the end of each interview.

As indicated by this author's research schematic, these interviews (like the practitioner focus group) ultimately resulted in revisions to the model and to this study's research questions. For example, one partner challenged this author to describe similarities and differences between this study's conceptual model and

³⁴ Consultants seemed to relish the opportunity to discuss the topic with this researcher and were never at a loss for words.

Kaplan and Norton (1992)'s Balanced Scorecard³⁵. An associate partner questioned the difference between this author's conceptual model and *hoshin kanri*³⁶. Two other participants, a junior consultant and a senior partner, expressed doubts that their clients' supply executives would be able to describe their respective company's value-based strategies – an interesting observation unto itself.

Questionnaire survey:

A survey was the third of this study's four research methods. To measure 'the degree to which some feature [i.e. a value gap] is present' (Kirk and Miller (1986:9)) in a large sample of organisations, survey research:

Entails the collection of data ... on a number of units and usually at a single juncture in time, with a view to collecting systematically a body of quantifiable data in respect of a number of variables which are then examined to discern patterns of association. (Bryman 1989:104)

To test this author's conceptual model, the questionnaire survey measured the definition of particular value-based strategies³⁷ at different levels / functions in the firm. The survey was pilot tested by five consultants, three academics and two practitioners. They commented on specific questions and the overall survey design. The pilot study was very helpful, providing good suggestions on re-phrasing specific questions as well as improving response measurement. For example, initially Likert-scales (e.g., ranging from 1 "not very important" to 5 "very important") were used to measure the importance of particular value-based strategies. The final survey asks respondents to allocate points to (i.e. place weights on) value-based strategies from a finite pool of votes; this allocation was meant to mirror his or her organisation's allocation of finite resources between alternative strategies.

Three colour-coded surveys were sent to each participating firm. These three surveys contained the same questions (Appendix A) but were addressed to different audiences. The green survey was completed by the firm's Managing

³⁵ See Section 3.3 for a detailed discussion of the Balanced Scorecard.

³⁶ This author reviews *hoshin kanri* in Section 2.5.

³⁷ Recall that this author conceptualised value-based strategies as a combination of Treacy and Wiersema (1993)'s value disciplines and Hines, Lamming et al. (2000)'s value stream characteristics. See discussion of research question one in Section 7.2.1.

Director/CEO/COO; the blue, by the firm's Head of PSM; and the tan, by a front-line purchaser/buyer. The green survey measured the conceptualisation of value within the firm; the blue, the configuration of value; and the tan, the implementation of value³⁸. Since the purpose of the questionnaire was to establish a broad understanding of value gaps, a positivist approach to information gathering and data analysis was used. By quantitatively analysing survey results, this author aimed to detect the presence and magnitude of value gaps predicted by the conceptual model³⁹.

The sample frame was carefully selected to represent large/medium-sized firms across a range of industrial sectors. The Center for Advanced Purchasing Study (CAPS) kindly provided access to its database of US firms; the UK database was constructed from existing contacts and publicly available information at the University of Bath. The research survey was conducted simultaneously in the UK and USA. 450 US and 130 UK firms received surveys via post. 118 surveys were returned: 102 from the USA and 18 from the UK. See Table 7I. 77 organisations participated⁴⁰ constituting 42 singleton, 29 double and six triple survey returns. Considering the complexity of the questionnaire this response rate was deemed very acceptable.

Case studies:

The phenomenological approach is concerned with using research to understand complex situations that do not conform to pre-conceived hypotheses⁴¹.

According to Bryman (1989) qualitative research:

Tends to be one individual's interpretation of their environment and theirs and others' behaviour. The presentation of data tends to be sensitive to the nuances of what people say and to the contexts in which their actions take place. The emphasis tends to be on understanding what is going on in organisations in participants' own terms rather than those of the researcher. (Bryman 1989:29)

³⁸ See discussion of process ownership in Section 7.3

³⁹ Value gaps in particular in participating firms were measured and studied using a variety of statistical techniques including cluster analysis. These results are discussed in Chapter Eight.

⁴⁰ Survey respondents are profiled in Chapter Eight.

⁴¹ See the comparison of the positivist and phenomenological research approaches in Section 7.4.

Table 7I:
Survey respondent organisations and titles

Respondent Organisation	Respondent Title	Survey	Country
A. W. Chesterton	Strategic Sourcing Manager	Blue	USA
American Electric	<i>No title provided</i>	Beige	USA
American Family Insurance	Procurement Director	Green	USA
American Light	Product Line Manager	Beige	USA
American Light	Director of Operations	Blue	USA
American Light	Director of Purchasing	Green	USA
Anadigics	Purchasing Specialist	Blue	USA
Anadigics	Director of Purchasing	Green	USA
Attwood Corp	Director of Sourcing	Blue	USA
Baptist Health Systems of South Florida	Assistant Vice President, Corporate Director of Materials Management.	Beige	USA
Barrick Goldstrike Mines Inc	Senior Buyer	Beige	USA
Barrick Goldstrike Mines Inc	<i>No title provided</i>	Blue	USA
Barrick Goldstrike Mines Inc	Superintendent of Materials	Green	USA
Bell & Howell DMPC	Director, Logistics	Green	USA
Bell Atlantic (now Verizon)	Sourcing Process Leader	Beige	USA
Bell Atlantic (now Verizon)	Director Strategic Sourcing	Blue	USA
Bell Atlantic (now Verizon)	Senior Vice President	Green	USA
Biffa	Group Purchasing Manager	Beige	UK
Biffa	Director	Green	UK
Big Planet	Procurement Director	Beige	USA
Big Planet	VP Operations	Blue	USA
Bissell Inc	Buyer Planner	Beige	USA
Bissell Inc	Director of Materials and Logistics Management	Blue	USA
Bridon American Corp	Director of Purchasing and Logistics	Blue	USA
Bridon American Corp	President	Green	USA
Cannon Equipment	Purchasing Manager	Beige	USA
Cannon Equipment	VP/General Manager	Green	USA
Carolinas HealthCare System	VP Corporate Services	Blue	USA
Carolinas HealthCare System	Director of operations and Materials management	Green	USA
CCL Custom Mfg	VP Purchasing	Beige	USA
CCL Custom Mfg	Director International Services	Blue	USA
Chick Fil A Inc	Buyer	Beige	USA
Chick Fil A Inc	Director, Purchasing	Blue	USA
Chick Fil A Inc	Vice President, Purchasing and Distribution.	Green	USA
Christian Salvesen	Fleet Services Director	Blue	UK
Clarke American Checks Inc	Category Manager	Beige	USA
Clarke American Checks Inc	President and CEO	Green	USA
Clays	Purchasing General Manager	Blue	UK
Coats American	VP Manufacturing	Blue	USA
Coats American	CEO	Green	USA
Company X	Director Corporate Purchasing	Blue	USA
Company X	Second Vice President, Administrative Services	Green	USA
Connectiv	Strategic Relationship Manager	Beige	USA
Connectiv	VP- Supply Chain	Blue	USA
Connectiv	President and Chief Operating Officer	Green	USA
Consortium of Purchasing and Distribution	Supply Chain Manager	Blue	UK

Delco Remy International	Director, Global Supplier Management	Blue	USA
Demag DeLaval Turbomachinery	Purchasing Manager	Beige	USA
Demag DeLaval Turbomachinery	Director of Supply Management	Blue	USA
Dixie Industrial Supply	Director Purchasing	Blue	USA
Dixie Industrial Supply	Vice President Marketing	Green	USA
Dysons	Senior Buyer	Beige	UK
Eagle Uniform & Linen Supply	Controller	Blue	USA
Eagle Uniform & Linen Supply	<i>No title provided</i>	Green	USA
EMC Corp	Director Corporate Purchasing	Green	USA
Federal Express	Program Management Advisor	Beige	USA
Federal Express	Acting VP Strategic Service and Supply	Green	USA
FHL	Senior Buyer	Beige	UK
FHL	Supply Chain Manager	Blue	UK
Florida Distillers	Director of Purchasing	Blue	USA
GDE Systems Inc	Manager, Materials	Blue	USA
Green Bull Inc	C.O.O	Blue	USA
Hiram Walker & Sons Limited	Supply Manager - Packaging	Beige	USA
Hiram Walker & Sons Limited	Director, Supply Management	Blue	USA
HMI Industries Inc	Director of Purchasing	Blue	USA
In Focus	Director World Wide Procurement	Blue	USA
In Focus	VP Business and Technology Development	Green	USA
Kozy Shac Inc	Director of Purchasing	Green	USA
Laboratory Corp of America	Vice President	Green	USA
Learjet Inc	Senior Buyer- Outside Production	Beige	USA
Learjet Inc	Senior Project Coordinator Procurement.	Blue	USA
Lenox Collections	Sr. VP	Blue	USA
Lexis-Nexis	Corporate Purchasing Specialist	Beige	USA
Lexis-Nexis	<i>No title provided</i>	Green	USA
Lucent Technologies	Supply Management VP	Blue	USA
Lucent Technologies	Director Strategy and Business Development	Green	USA
Lyondell Equistar	Manager, Purchasing.	Blue	USA
Merck	Finance Manager	Green	USA
Merrill Lynch	Vice President, Commodity Manager	Green	USA
Micron	Senior Manager Corporate Procurement	Beige	USA
Micron	Senior Commodity Manager, Corporate Procurement	Green	USA
Mid West Metal Prod	CEO	Green	USA
Ministry of Defence	Assistant Director Commercial	Beige	UK
Ministry of Defence	Defence Commercial Policy Group Leader	Blue	UK
Ministry of Defence	Director General Commercial, MOD	Green	UK
MK Ferguson Co	Director of Procurement	Beige	USA
Murdock Healthcare Health Prods Inc	Lead Buyer	Beige	USA
Nabors Industries	Manager Purchasing	Green	USA
Navistar International Transportation Group	Senior Corporate Buyer	Beige	USA
Navistar International Transportation Group	<i>No title provided</i>	Blue	USA
Net Results Supply Chain Mgmt Inc	President	Green	USA
Nevada Power	Director Supply Chain	Beige	USA
Nevada Power	<i>No title provided</i>	Blue	USA
Newmont Gold Co	Director Materials Management	Green	USA
Norcold Inc	Director of Materials	Green	USA
Novell	Commodity Manager	Beige	USA

Perdue Farms	Manager of Material Planning	Beige	USA
Pilkington	Head Of Supply Management - OE Europe	Blue	UK
Pilkington	Supply Management Director	Blue	UK
Provident Bank	Sourcing Agent 2	Beige	USA
Provident Bank	Sourcing Manager	Blue	USA
Raychem Mfg Corp	Purchasing Manager	Blue	USA
Reynolds & Reynolds	VP- Supply Management	Blue	USA
Reynolds & Reynolds	Director, Strategy and Business Development	Green	USA
Rockwell International	Supply Manager - Control Systems Strategic Sourcing	Beige	USA
Rockwell International	Director, Strategic Sourcing	Green	USA
Rubbermaid	Director of Purchasing	Blue	USA
S&N Richards	Distribution Director	Beige	USA
Secure Computing Corp	SR Buyer	Beige	USA
Sodexo Marriott	VP Corporate Purchasing	Blue	USA
Sodexo Marriott	Director of Purchasing	Green	USA
Square D Co Schneider Electric	Director	Blue	USA
Supply America	President	Green	USA
Thales Avionics Ltd.	Procurement Manager	Blue	UK
The Purchasing Consortium	Buyer	Beige	UK
Unipart	Supply Development Manager - UGC	Green	UK
Wetherill Assoc Inc	Commodity Manager	Green	USA
Wright Solutions Inc	VP and COO	Beige	USA

Table 7J:
Selection criteria for selected case companies

Selection criteria	U	V	W	X	Y	Z
(a) Public recognition by professional bodies (e.g., CIPS or the NAPM)						*
(b) Use of a structured strategic sourcing process (oftentimes implemented with the assistance of a large consultancy)		*	*		*	*
(c) Publication of 'best practices'						*
(d) Benchmarks demonstrating their leadership position in PSM				*		*
(e) Membership in select supply-related associations (e.g., NISCI)				*		*

Table 7K:
Case study company industries

Label	Customers	Focal organisation	Suppliers
U	• UK Ministry of Defence	• Defence contractor	• Advanced technology subcontractor
V	• UK Armed Forces	• UK Ministry of Defence	• Avionics
W	• Internal Business Units	• Global financial services (retail and institutional)	• Management consultancy
X	• Internal Business Units	• Domestic financial services (retail)	• Information technology • Food services • Personal computer installation, support and service • Real estate facilities management

Table 7K: Case study company industries			
Y	<ul style="list-style-type: none"> Construction contractors Independent distributors Subsidiary distributor Major DIY retailer 	<ul style="list-style-type: none"> Building materials 	<ul style="list-style-type: none"> Manufacturing and production monitoring systems Packaging
Z	<ul style="list-style-type: none"> Agricultural Environmental services 	<ul style="list-style-type: none"> Heavy equipment manufacturer 	<ul style="list-style-type: none"> MRO Print

Company interviews are appropriate for answering “how” and “why” research questions. ‘The aim is not to infer findings from a sample to a population, but to engender patterns and linkages of theoretical importance’ (Bryman 1989:173).

Case study companies were selected based on their use of leading-edge PSM techniques and practices as indicated by the following proxies: (a) public recognition by professional bodies (e.g., CIPS or the NAPM); (b) use of a structured strategic sourcing process (oftentimes implemented with the assistance of a large consultancy); (c) publication of ‘best practices’; (d) benchmarks demonstrating their leadership position in PSM; and (e) membership in select supply-related associations (e.g., NISCI). Five of the six cases met at least one of these criteria (Table 7J)⁴². One company, u, was selected strictly as a convenience sample. In total, a mix of industries was represented (Table 7K).

Companies agreed to provide access to multiple employees responsible for value conceptualisation (Managing Director or other chief executive), value configuration (head of purchasing and supply management), and value implementation (front-line purchasing staff)⁴³. In addition, companies agreed to provide access to representatives from customer and supplier firms. This author requested a one hour session with each interviewee. Sixty individuals (Table 7L) were interviewed resulting in over one hundred hours of interviews.

To receive their permission to audio-tape and transcribe sessions, several firms requested that this author sign confidentiality agreements. Case companies, participant names and detailed transcripts are as a result not disclosed in this thesis⁴⁴. This author developed a nomenclature (Appendix B) to identify and to

⁴² Two companies participated in the survey whilst another participated in the practitioner (NISCI) focus group.

⁴³ Recall from Section 7.2 that the “unit of analysis” is the PSM function.

⁴⁴ Companies granted full disclosure to Ph.D. examiners at time of examination.

summarise key characteristics of these sixty individuals whilst maintaining their anonymity. As a result, all sixty interviewees can be mapped to this author's conceptual model (Figure 7I) based upon their respective titles (Table 7M) and responsibilities detailed during the interviews.

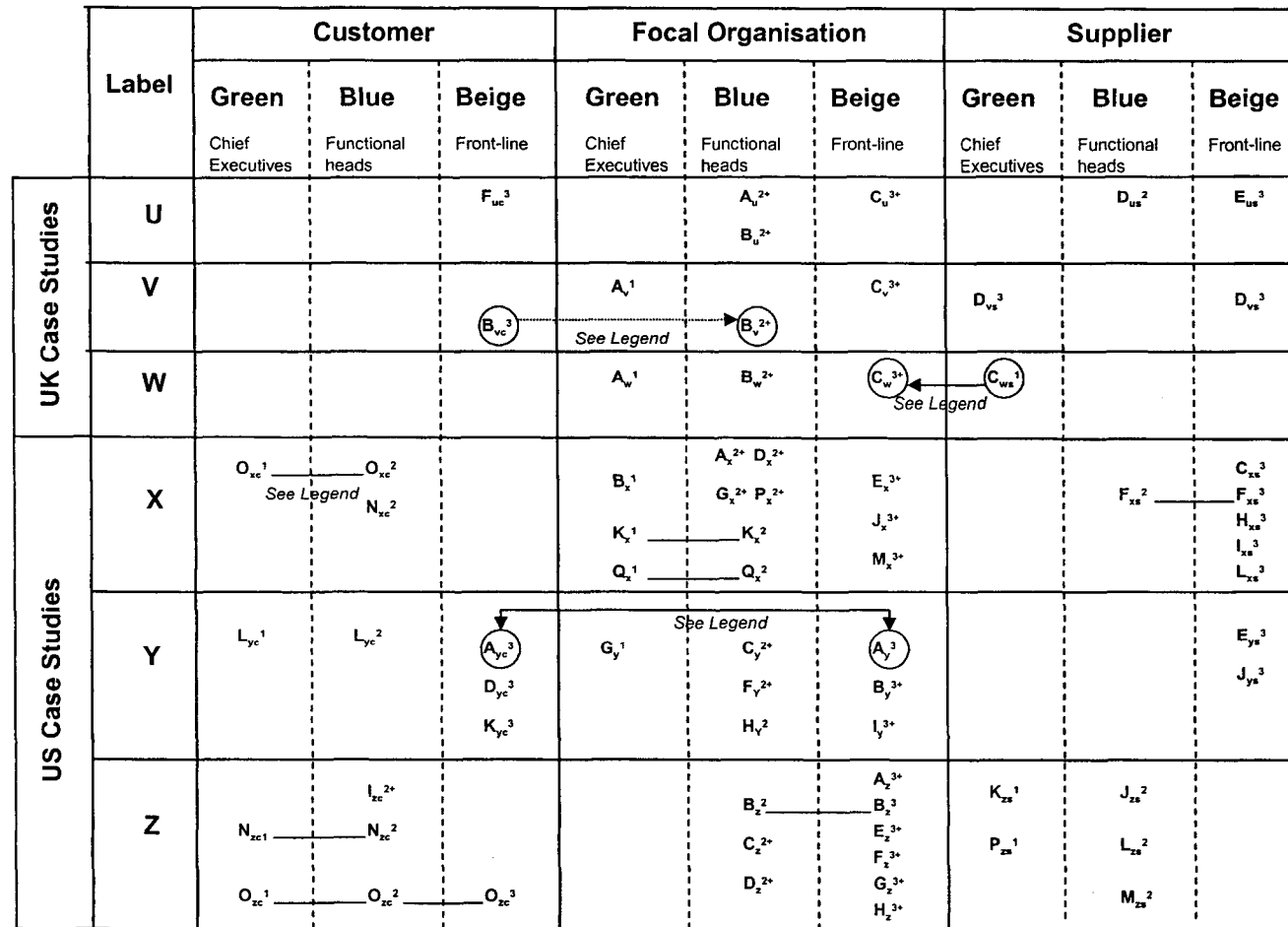
Table 7L: Case study individuals interviewed					
Label	Focal Organisation		Suppliers	Customers	Total
	PSM (+)	Non-PSM			
U	3	0	2	1	6
V	2	1	1	1	5
W	2	1	1	0	4
X	7	3	5	2	17
Y	4	3	2	4	13
Z	8	1	5	3	17
Total	26	9	16	11	62*

* Two individuals were double counted as they were seconded to another role in the focal organisation or were in a wholly owned subsidiary of the focal organisation. In total, sixty different individuals were interviewed resulting in over one hundred hours of interviews.

Case study research was critical to this study for several reasons. Firstly, the researcher was able to hear/read in the interviewee's own words what value meant to him or her. Secondly, the interviewee sometimes predicted (correctly and incorrectly) another interviewees' answers. Probing the interviewee's reasoning was revealing. Thirdly, the interviewee sometimes provided organisational charts, policies and procedures, etc. that described their firm's purchasing and supply practices. Fourthly, the researcher was able to hear/read in the customer's or supplier's own words what value actually meant to each of them, enabling this author to examine value perceptions versus expectations across the triad.

In summary, this author assumed a mixed research ontology (i.e., 'realism') incorporating the two most common methodologies (positivism and interpretivism). The research methods used in this thesis are summarized in Table 7N. The methods are complementary to overcome the shortcomings of each, thereby creating a robust research design. As with any research design, methodological pitfalls need to be addressed and avoided. This author now turns to this discussion.

Figure 71: Case study interviewee map



Legend:

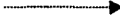



 Seconded to position
  Permanently moved to/hired into position
  Position with multiple roles/responsibilities
  Position in a wholly owned subsidiary of the organisation

Table 7M:
Case Company interviews

Name*	Perspective	Case	Title	Level	Date	Time
A _u ²⁺	Firm (PLC)	U	Director, Purchasing – ABC Group	Blue	7 Jan 02	16:20 – 17:15
B _u ²⁺	Firm (PLC)	U	Purchasing Contracts Negotiator	Blue	20 Nov 01	11:00 – 11:45
C _u ³⁺	Firm (PLC)	U	Purchasing Officer	Beige	20 Nov 01	10:00 – 10:40
D _{us} ²	Supplier (PLC)	U	Procurement Director	Blue (Supplier)	14 Jan 02	10:00 – 10:40
E _{us} ³	Supplier (PLC)	U	Support Desk Manager	Beige (Supplier)	7 Jan 02	2:40 – 3:15
F _{uc} ³	Customer (Ministry of Defence)	U	Project Team Leader	Beige (Customer)	9 Jan 02	9:35 – 10:30
A _v ¹	Ministry of Defence	V	Integrated Performance Team Leader (XYZ Project)	Green	8 Jan 02	10:00 – 11:00
B _v ²⁺	Ministry of Defence	V	Requirements Manager (XYZ Project)	Blue	7 Feb 02	3:00 – 4:00
C _v ³⁺	Ministry of Defence	V	Commercial (XYZ Project)	Beige	8 Jan 02	11:30 – 12:30
D _{vs} ¹	Supplier (PLC)	V	Project Manager	Green (Supplier)	6 Feb 02	3:30 – 4:30
B _{vc} ³	Customer (Armed Forces)	V	Requirements Manager (XYZ Project)	Beige (Customer)	7 Feb 02	3:00 – 4:00
A _w ¹	Firm (PLC)	W	Head of Network Centre	Green	8 Apr 02	10:10 – 11:30
B _w ²⁺	Firm (PLC)	W	Head of Sourcing	Blue	8 Apr 02	12:00 – 13:00
C _w ³⁺	Firm (PLC)	W	Supplier Development	Beige	8 Apr 02	14:00 – 15:10
C _{ws} ¹	Supplier (Consultant)	W	Self-employed	Green (Supplier)	8 Apr 02	14:00 – 15:10
A _x ²⁺	Firm (PLC)	X	Director, Corporate Purchasing	Blue	25 Oct 01	7:30-9:00
B _x ¹	Firm (PLC)	X	Chief Financial Officer	Green	04 Jan 02	12:30 – 2:00
C _{xs} ³	Supplier (PLC)	X	General Manager	Beige (Supplier)	26 Oct 01	8:39 – 9:30
D _x ²⁺	Firm (PLC)	X	Assistant Director, Corporate Purchasing – Information Technology	Blue	25 Oct 01	9:00 – 10:00
E _x ³⁺	Firm (PLC)	X	Senior Corporate Negotiator	Beige	25 Oct 01	10:30 – 11:30
F _{xs} ²³	Supplier (PLC)	X	Vice President and General Sales Manager	Blue/Beige (Supplier)	25 Oct 01	1:00 – 2:00
G _x ²⁺	Firm (PLC)	X	Assistant Director, Supplier Relations	Blue	25 Oct 01	2:30 – 3:30
H _{xs} ³	Supplier (PLC)	X	Client Manager	Beige (Supplier)	26 Oct 01	7:30 – 8:30
I _{xs} ³	Supplier (PLC)	X	Client Manager	Beige (Supplier)	26 Oct 01	7:30 – 8:30
J _x ³⁺	Firm (PLC)	X	Senior Corporate Negotiator	Beige	26 Oct 01	9:30 – 10:30
K _x ¹²	Firm (PLC)	X	Vice President, Shared Services Business Unit	Green/Blue	26 Oct 01	10:30 – 11:30
L _{xs} ³	Supplier (PLC)	X		Beige (Supplier)	26 Oct 01	1:00 – 2:00
M _x ³⁺	Firm (PLC)	X	Relationship Manager	Beige	26 Oct 01	2:00 – 3:00
N _{xc} ²	Customer (Internal)	X		Blue (Customer)	23 Jan 02	9:00 – 10:00
O _{xc} ¹²	Customer (Internal)	X	Chief Information Officer, XYZ Business Unit	Green/Blue (Customer)	14 Jan 02	4:00 – 5:00
P _x ²⁺	Firm (PLC)	X	Assistant Director, Corporate Purchasing – Indirects	Blue	4 Jan 02	9:00 – 10:00
Q _x ¹²	Firm (PLC)	X	Chief Information Officer, Shared Services Business Unit	Green/Blue	4 Jan 02	10:30 – 11:30

Table 7M:
Case Company interviews

A _{yc} ³	Customer (Corporation Distributor)	Y	Manager, Center Operations	Beige (Customer)	17 Jan 02	9:30 – 10:30
B _v ³⁺	Firm (PLC)	Y	Manager, Strategic Sourcing	Beige		
C _v ²⁺	Firm (PLC)	Y	Director, Strategic Sourcing	Blue	29 Nov 01	2 hours
D _{vc} ³	Customer (Individual: Contractor)	Y	Construction Manager	Beige (Customer)	14 Dec 01	
E _{vs} ³	Supplier (PLC)	Y	National Account Sales Manager	Beige (Supplier)		
F _v ²⁺	Firm (PLC)	Y	Vice President, Supply Chain Management	Blue	29 Nov 01	2 hours
G _v ¹	Firm (PLC)	Y	Senior Vice President and President (<i>XYZ Systems Division</i>)	Green	14 Dec 01	1.75 hours
H _v ²	Firm (PLC)	Y	Director, Logistics Planning and Development	Blue		
I _v ³⁺	Firm (PLC)	Y	Manager, Strategic Sourcing – Direct Materials	Beige	29 Nov 01	2 hours
J _{vs} ³	Supplier (PLC)	Y	Strategic Account Manager	Beige (Supplier)	14 Dec 01	1.5 hours
K _{vc} ³	Customer (Corporation: Retailer)	Y	Sales Assistant Manager	Beige (Customer)	14 Dec 01	
L _{yc} ¹²	Customer (Private Company: Distributor)	Y	Owner	Green/Blue (Customer)		
A _z ³⁺	Firm	Z	Supply Base Manager, Enterprise Supply Management	Beige	22 Oct 01	9:00 – 10:00
B _z ²³	Firm	Z	Manager, Business Planning	Blue/Beige	22 Oct 01	1:00 – 2:30
C _z ²⁺	Firm	Z	Director of Supply Management, Strategic Sourcing	Blue	22 Oct 01	4:00 – 5:00
D _z ²⁺	Firm	Z	Vice President, Worldwide Supply Management	Blue	23 Oct 01	9:00 – 11:00
E _z ³⁺	Firm	Z	Manager, General Company Supply Management – Indirect Materials and Services, B2B	Beige	24 Oct 01	2:30 – 4:30
F _z ³⁺	Firm	Z	Supply Management Specialist, General Supply Management	Beige	24 Oct 01	8:00 – 9:00
G _z ³⁺	Firm	Z	Project Manager, Indirect Materials and Services	Beige	23 Oct 01	2:00 – 4:00
H _z ³⁺	Firm	Z	Supply Base Manager (MRO)	Beige	24 Oct 01	10:30 – 12:00
I _{zc} ²⁺	Customer (Industry)	Z	Vice President and Chief Procurement Officer	Blue (Customer)	05 Dec 01	
J _{zs} ²	Supplier	Z	Vice President, Sales	Blue (Supplier)	23 Oct 01	12:00 – 2:00
K _{zs} ¹	Supplier	Z	President	Green (Supplier)	24 Oct 01	9:00 – 10:30
L _{zs} ²	Supplier	Z	Vice President, Finance	Blue (Supplier)	24 Oct 01	9:00 – 10:30
M _{zs} ²	Supplier	Z	Director of Sales	Blue (Supplier)	24 Oct 01	9:00 – 10:30
N _{zc} ¹²⁺	Customer (Partnership)	Z	Partner	Green/Blue (Customer)	10 Jan 02	9:00 – 10:00
O _{zc} ¹²³⁺	Customer (Individual)	Z	Self-employed	Green/Blue/Beige (Customer)	10 Jan 02	11:00 – 12:00
P _{zs} ¹	Supplier	Z	President and CEO	Green (Supplier)	NA	NA

7.6 Potential pitfalls of the chosen research design

Recall from Section 7.4 that Easterby-Smith, Thorpe et al. (1991) posit *research credibility* to be a function of the research's validity, reliability, and generalisability. Riley, Wood et al. (2000:18) label validity, reliability and generalisability "the three axioms of sound methodology". They note that whilst these concepts are a reflection of the imperatives of the positivist tradition, 'only the most extreme anti-positivist would claim that these criteria do not have any meaning and significance beyond research conducted in the positivist tradition' Riley, Wood et al. (2000:19). This author therefore reviews the potential pitfalls of the research methodologies employed (Table 7N) in the context of these three axioms.

Table 7N: Comparison of Research Methodologies used in this Study			
Description	Interviews	Survey Method	Case method
Unit of measure	People	Firm	Firm
Number of units	Several (individuals)	Many (respondent firms)	Few (firms) / several (individuals)
Sampling	Convenience	Convenience	Selective/modified snowball sampling
Time Horizon	Cross-sectional	Cross-sectional	Cross-sectional
Participation of researcher in field study	Very close	Not close	Close
Data collection instrument(s)	Group of individuals and individuals	Research designed	Individuals and documents
Emphasis on understanding	Participant's view	Researcher's view	Participant's and researcher's view
Generalisability	Highly unlikely (exploratory)	Highly likely (descriptive)	Unlikely
Nature of measurement	Qualitative	Quantitative	Qualitative
Methods used	Practitioner focus group and unstructured consultant interviews	Questionnaire	Semi-structured interviews of case firm employees, customers and suppliers

Interviews

This author conducted one practitioner focus group and several consultant interviews. Both formats were intended to be "open", i.e. unstructured, since they were exploratory in nature and the conceptual model had not yet been formalised. This author's original aim was to adopt a "neutral" stance during these interviews. However, the author read Easterby-Smith, Thorpe et al. (1991:74) who cite Jones (1985) to assert that presupposition-less research does not and cannot exist. 'In preparing for interviews researchers will have, and should have, some broad questions in mind, and the more interviews they do and the more patterns they see

in the data, the more likely they are to use this grounded understanding to want to explore in certain directions rather than others' Jones (1985:47).

As a result, this author used the conceptual model – rather than a list of questions – to frame conversations with subject matter experts. Since these interviews were intentionally exploratory in nature (and not meant to validate the model) and since the conceptual model was developed from the academic literature, this author was primarily interested in the unassisted reaction(s) of interviewees to a theoretically derived framework. The valuable commentary and suggestions received –outlined in Sections 7.4 and 7.5 – might not have been generated using a more structured interviewing technique. This author used this approach on another study⁴⁵ where the specific research questions had already been determined.

Survey method

This author followed Easterby-Smith, Thorpe et al. (1991)'s five recommendations when designing survey questions: ensure that questions are clear, avoid specialist language/jargon, avoid personal questions, do not ask multiple questions in the same sentence, and avoid "leading" questions. The pilot study of the survey instrument described in Section 7.5 was helpful in identifying deviations from these recommendations. Reviewers provided direct feedback to this author including line-by-line edits of the survey instrument.

Patchen (1965) asserts that research validity can be measured in one of three ways: face validity (i.e., testing whether the instrument and its questions are plausible), convergent validity (i.e., comparing the instrument with other independent instruments) and group validation (i.e., comparing groups otherwise known to differ on the factor in question). This study's survey instrument was compared to other instruments developed and/or used by this author in previous studies. These included a conjoint survey of banking customers measuring the

⁴⁵ This author was part of a joint A.T. Kearney – Center for Advanced Purchasing Studies research team which published *The Future of Purchasing and Supply: A Five and Ten Year Forecast* in 1998. 'The study team conducted eleven regional focus groups with over 160 purchasing/supply executives in 1997. Prior to each focus group, the executives completed a survey containing 37 forecasts. The survey measured the executives' agreement and disagreement with each statement. The researchers discussed the responses with the focus group participants. Highlights from these discussions, as well as pertinent anonymous quotations, are contained in the research report' Carter, Carter et al. (1998:26)

utility of particular financial service options⁴⁶, a Likert-scale survey measuring PSM executive acceptance of forecasted developments in the profession⁴⁷, and a multiple choice questionnaire of purchasing practices by PSM executives⁴⁸. These rigorously validated survey instruments were useful examples. Since this study appeared to be the first large-scale study investigating purchasing and supply management's role in value-based strategies conducted in the UK or the US, however, convergent validity could not be demonstrated. Instead, the survey instrument was validated through face validation supported by pilot testing.

Case method

Yin (1984:21-22) identifies three major criticisms of the case method: (1) a lack of rigour which allows equivocal or biased views to influence the direction of findings and conclusions, (2) little basis for scientific generalization, and (3) excessive time requirements resulting in massive, unreadable documents. This author addresses the first criticism by developing and using a semi-structured interview protocol to explore four key areas: (a) the organisation's value proposition, (b) differences between buy-side versus sell-side value strategies, (c) alignment of value definitions across levels within the firm, and (d) geographical differences either at the plant, regional or national levels. Moser and Kalton (1971:298-301) note that semi-structured interviews (used as part of the case study) should be examined on four dimensions: interviewer skill, bias, depth and analysis. This author has a decade of professional experience conducting research interviews⁴⁹.

⁴⁶ This author was part of a research team at Andersen Consulting which administered 'A computer-based, interactive survey of 2000 consumers to probe values in six areas: delivery channel, price (rates and fees), interaction quality, response speed, product breadth and customization and relationship management (high-touch versus low-touch)' in six major US markets in 1995. See Elliott, Swan et al. (1995).

⁴⁷ See Carter, Carter et al. (1998).

⁴⁸ This author was part of a joint Arizona State University - McKinsey & Company research project investigating the impact of purchasing and supply management activities on corporate success. The proprietary study, managed by Dr. Lisa Ellram, was completed in 1999. This author had access to the project's questionnaire (and frequently referenced it during development of this study's survey instrument). Ellram, Zsidisin et al. (2002) describes the project's research method as follows: 'The primary method used to gather data for this research was a mail survey. Construct development for purchasing practices closely followed the procedure for one-time, cross-sectional data recommended by Churchill (1979). A survey questionnaire was developed after an extensive review of the Purchasing and Supply Management (PSM) literature. Existing scales were used or modified for the constructs of total cost of ownership (Ellram and Siferd, 1998; Maltz and Ellram, 1997; Ellram and Maltz, 1995), supplier development (Krause, 1999; Krause and Ellram, 1997), supplier alliances (Blancero and Ellram, 1997; Cooper, Ellram, Gardner and Hanks, 1997), and supply risk (Noordeweier, John and Nevin, 1990; Walker and Weber, 1984; Robertson and Gatignon, 1998). Practitioners and academics possessing general business, purchasing and research expertise extensively reviewed the initial instrument. The survey was modified and pre-tested on several purchasing executives before being finalized'.

⁴⁹ This author served as Research Manager with McKinsey & Company's Purchasing and Supply Practice (1998-2001), with A.T. Kearney's Operations Practice (1996-1998), and with Andersen Consulting Strategic Services Practice (1994-1996). He was also a Research Analyst with the finance department at Harvard Business School (1992-1994).

This author addressed Yin's second criticism by using a modified snowball sampling approach whereby the main contact within each case study organisation arranged interviews with other knowledgeable firm personnel, suppliers and customers across a variety of industries. This author gained wide access to high-ranking personnel particularly in the US. The number, length and depth of interviews are comparable to other research studies this author has previously co-managed and to a recent case-based industry research study⁵⁰.

This author addressed Yin's third criticism by maintaining a disciplined focus on this study's research questions, and by using a rigorous structured approach to identify patterns and relationships between concepts explored in the interviews. Firstly, this author reviewed all transcripts and notes of the interviews to extract only sections pertinent to this study⁵¹. Key comments were thereby isolated. Secondly, this author used open coding to classify responses based upon a set of pertinent key words and phrases related to the conceptual model and to the research questions. See Appendix C. The resulting table was iteratively sorted and (re) analysed to uncover patterns and relationships. This author will now turn to a discussion of these findings.

7.7 Conclusion

This chapter has reviewed the nature and structure of this thesis's research. To accomplish this objective, this author defined the terms *philosophy of science*, *first principles*, and *research philosophy*; discussed this thesis's *research objectives* and *research questions*; described the conceptual *value gaps model* this author will use to investigate these questions; reviewed important *research philosophical issues* endemic to management research; examined the *research approach* selected by this author, and discussed the rationale for its choice; and outlined potential *research pitfalls* of the chosen approach.

The proceeding chapter will discuss the results of the research. Specifically this author will review the empirical findings of this thesis's primary research in the context of this author's conceptual model. Accordingly the author will review the

⁵⁰ See Ellram (2002).

⁵¹ In accordance with confidentiality agreements signed by this author full interview transcripts are not included in the published thesis. Select interviewee quotations are found in Tables 8P through 8T.

results of a broad survey documenting a shift in the definition of value on the buy- and sell-sides of organisations; examine the results of the survey which also demonstrate a shift in the definition of value across the different levels of organisations; and discuss case-study findings indicating misalignment of value definitions across the supply chain as manifested in several triads of companies.

CHAPTER EIGHT:
DISCUSSION OF RESEARCH FINDINGS

8.0 Purpose

The preceding chapter reviewed the nature and structure of this thesis's research. To accomplish this objective, this author defined the terms *philosophy of science*, *first principles*, and *research philosophy*; discussed this thesis's *research objectives* and *research questions*; described the conceptual *value gaps model* this author will use to investigate these questions; reviewed important *research philosophical issues* endemic to management research; examined the *research approach* selected by this author, and discussed the rationale for its choice; and outlined potential *research pitfalls* of the chosen approach.

The purpose of this chapter is to discuss the empirical findings of this thesis's primary research in the context of this author's conceptual model. To accomplish this objective, the author will:

1. Review the results of a broad survey documenting a shift in the definition of value on the buy- and sell-sides of organisations;
2. Examine the results of the survey which also demonstrate a shift in the definition of value across the different levels of organisations;
3. Discuss case-study findings indicating misalignment of value definitions across the supply chain as manifested in several triads of companies.

8.1 Value-based strategies and “value misalignment” within the firm

118 survey responses were returned consisting of the following: 39 from upper management level (green surveys), 45 from middle management level (blue surveys), and 34 from the front-line level (beige surveys)¹. Table 8A profiles general characteristics of the respondent organisations. It is clear from Table 8A and from the list of company names in Table 7I that a very diverse set of organisations were sampled.

¹ This author notes that 14 surveys might be reclassified (from one organisational level to another) based upon the respondents' respective job titles. Case study interviews of 60 individuals (Section 8.3) reveal that individuals sometimes assume multiple job roles and responsibilities. Without additional information about the survey respondents and/or the ability to question them further, this author is unable to determine whether reclassification is warranted. This author has therefore chosen not to reclassify any survey. Respondents are assumed to have accurately followed the survey instructions (see Appendix A).

Table 8A:					
Profile of survey respondent organisations					
Statistics	Mean	25 percentile	Median	75 percentile	Maximum
Total customers	343, 203	2	138	4,125	11,800,000
Total suppliers	3,078	49	350	2,625	37,000
Annual turnover / sales (\$ millions)	40	54	500	1,475	3,745
Annual purchases (\$ millions)	17	28	135	500	2,000
Total employees	19,028	375	2,500	7,750	280,000

Recall from Section 7.2 that this author defined a value-based strategy as a focussed strategy which pulls from a wide range of value characteristics (Figure 7A). The purpose of the questionnaire survey was to distinguish which “value characteristics” are associated with which value-based strategies relative to a firm’s role in its value chain. Any (focal) firm within a triad of companies relates to its value chain (the triad) in two fundamental ways: as a customer of its supplier (the buy-side) and as a supplier to its customer (the sell-side). The survey was designed to assess the different perceptions of value across the participating organisations relative to each of these roles. To that end, respondents were asked to allocate one hundred points between three value disciplines (defined by Treacy and Wiersema (1993)) to describe the blend of value-based strategies pursued by their respective organisations. They were also asked (twice) to allocate one hundred points between the seven value stream characteristics (defined by Hines, Lamming et al. (2000)) to describe the implementation of that mix of strategies from both the buy- and sell-sides of their respective organisations.

Pearson correlation statistics were calculated for value characteristics’ weights for both the buy- and sell-side perspectives. Correlation statistics were further analysed using two tailed significance tests to identify any statistical relationship(s) between the three value disciplines and the seven value characteristics. Table 8B documents the general absence of correlations between the two variables, likely due to the fact that the variance within the sample was too great and the sample size too small for such a divergent set of organisations.

Table 8B:						
Correlation Analysis – Value Disciplines and Value Characteristics (Total Sample)						
Focal firm as a customer (buy-side)				Focal firm as a supplier (sell-side)		
Value Characteristics	Low Cost Strategy	Innovation Strategy	Relationship Focus	Low Cost Strategy	Innovation Strategy	Relationship Focus
a. Customer Responsiveness	0.238**	-0.323**	0.36	0.140	0.016	-0.052
b. Timely Supply	0.035	-0.276**	0.308**	0.127	-0.072	0.052
c. High Quality G&S	-0.014	0.089	-0.017	-0.105	-0.023	0.034
d. Efficient operating process	0.183*	-0.187*	0.041	-0.007	-0.021	0.141
e. Lower Prices	0.052	-0.22	-0.057	0.048	-0.029	-0.051
f. Impact on profit	-0.12	0.133	0.125	0.009	-0.009	0.103
g. Highly innovative	-0.425**	0.263**	-0.120	-0.321	0.175	-0.138

* = Significant at 1% level two-tail test

**=Significant at 0.05% level two-tail test

Cluster analysis (SPSS Version 10.0 Quick Cluster algorithm) did reveal characteristics associated with distinct strategies pursued by respondent organisations. Table 8C shows the complete cluster analysis along with descriptors of the three resulting clusters. Although the clusters (indicated by Greek letters) were formed in different orders, each cluster appears irrespective of whether the firm assumes a supplier role (sell-side) or a customer role (buy-side). Each cluster was labeled based upon the value characteristics loading onto it. Thus, the “Price Cluster” (β) contains only one value characteristic: lower prices (e). The “Process Cluster” (α) contains three value characteristics: efficient operating processes (d), impact on profit (f), and highly innovative products and services (g). The “Customer Satisfaction Cluster” (γ) contains three value characteristics: customer responsiveness (a), timely supply of goods and services (b), and high quality goods and services (c).

Table 8C:						
Cluster analysis (total sample)						
Value Characteristics:	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	α	β	γ	α	γ	β
a. Customer Responsiveness			X		X	
b. Timely Supply			X		X	
c. High Quality G&S			X		X	
d. Efficient operating process	X			X		
e. Lower Prices		X				X
f. Impact on profit	X			X		
g. Highly innovative	X			X		
Names:	Process	Price	Customer Satisfaction	Process	Customer Satisfaction	Price

A K-means analysis was run to establish the validity of these groupings. Although all three clusters (indicated by Greek letters) mapped to Treacy and Wiersema (1993)'s three value disciplines (indicated by Roman numerals) in Table 8D, this mapping was not straightforward.

Table 8D: K-means comparisons (total sample)						
Value Disciplines	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	Cluster	Value Characteristics	Label for cluster on Figure 8A	Cluster	Value Characteristics	Label for cluster on Figure 8A
I: Low Cost	β (Price)	e	1 _c	γ (Customer Sat.)	a, b, c	1 _s
II: Innovation	α (Process)	d, f, g	2 _c	β (Price)	e	2 _s
III: Relationships	γ (Customer Sat.)	a, b, c	3 _c	γ (Customer Sat.)	a, b, c	3 _s

LEGEND a: customer responsiveness; b: timely supply; c: high quality goods and services;
d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

Table 8D reveals that value characteristics (lower case letters) associated with a given value discipline change depending on the perspective assumed by the respondent (buy-side versus sell-side). The sole exception is the “relationship-based” value discipline (III); it remains associated with the “customer satisfaction” cluster (γ) for both the customer and supplier roles. This author introduces the concept of “value misalignment” to describe this shift in the relationship between value characteristics and value disciplines vis-à-vis the firm’s role.

“Value alignment” occurs whenever value disciplines/ value characteristics remain constant when assuming either a customer or supplier role. To visualize the degree of “value alignment” or “value misalignment”, weights of characteristics and disciplines were graphed (Figure 8A) using a technique introduced by Cousins (2001). The axes’ end- and mid-points represent minimum, maximum, and average weights of value disciplines (y axis) or value characteristics (x axis). Table 8E contains the data corresponding to the points on Figure 8A. Arabic numerals in Figure 8A correspond to strategies defined empirically using the K-means analysis. Subscripts s and c indicate the assumed customer role (i.e. focal firm as supplier/sell-side versus customer/buy-side).

Table 8E: Point construction table (total sample)					
Focal firm as customer (buy-side)			Firm as supplier (sell-side)		
Label for Cluster on Figure 8A	X ¹	Y ²	Label for Cluster on Figure 8A	X ¹	Y ²
1 _c	e – 17.27	I – 40.40	1 _s	a – 17.63 b – 18.45 c – 15.53	I – 40.40
2 _c	d – 8.76 f – 10.82 g – 9.75	II – 23.54	2 _s	e – 13.25	II – 23.54
3 _c	a – 14.84 b – 20.46 c – 17.63	III – 35.21	3 _s	a – 17.63 b – 18.45 c – 15.53	III – 35.21

LEGEND (TABLE 8E AND FIGURE 8A)

NOTES

- (1) Mean weights of value characteristics have not been restated to account for rounding errors in order to preserve data integrity.
 (2) Mean weights of value disciplines have not been restated to account for rounding errors in order to preserve data integrity.

CHARACTERISTICS (X AXIS)

a: customer responsiveness; b: timely supply; c: high quality goods and services;
 d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

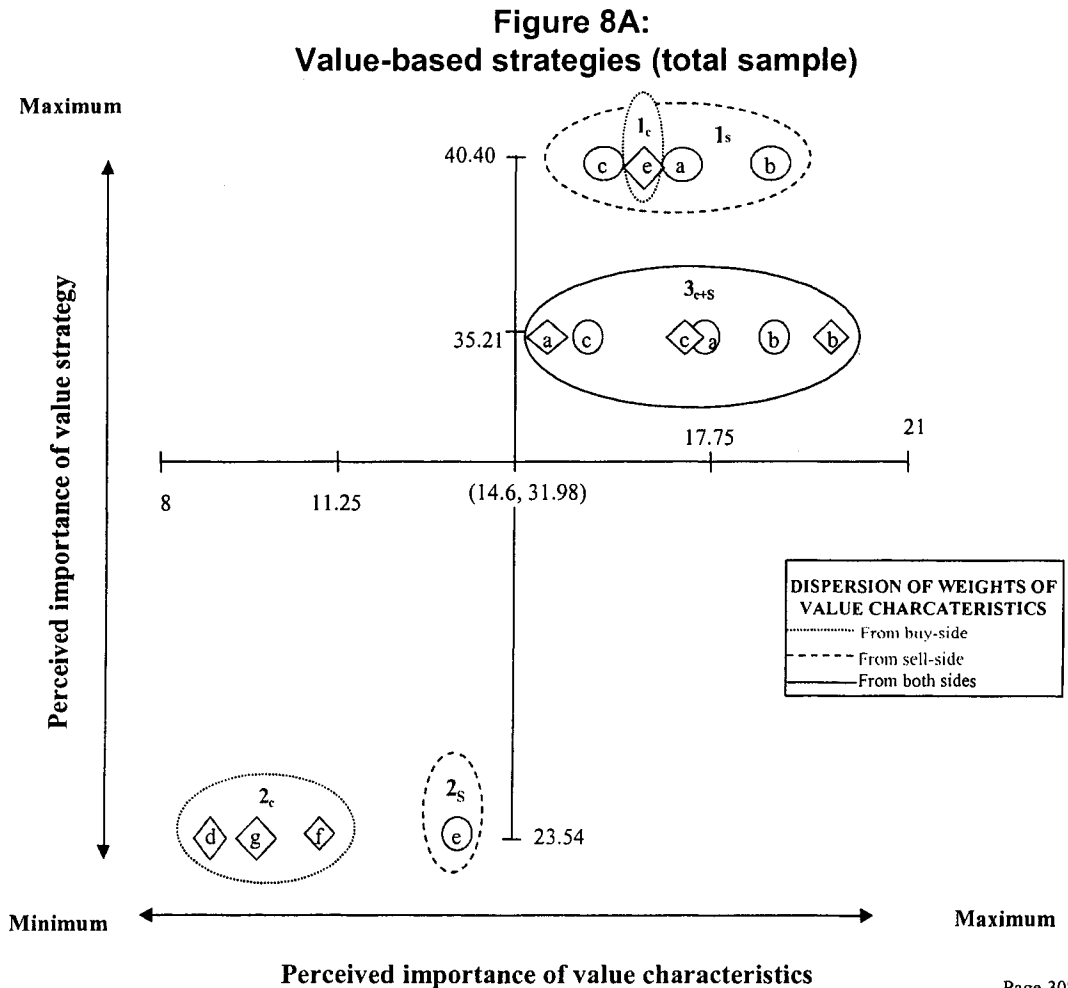
From perspective of focal firm as customer/buy-side (in circles) and as supplier/sell-side (in diamonds)

DISCIPLINES (Y)

I: Low cost provider; II: Product innovator; III: Customer relationship-based

CLUSTERS

1: Price; 2: Innovation; 3: Relationship



According to value first principles derived from the literature, value should flow uninterrupted across the functions within an organisation – i.e. from PSM, product development, engineering, marketing, and customer service – for the ultimate customers to receive what they consider value. The immediate customer of PSM is any internal business function or external organization that uses products or services procured by PSM. It is unlikely that PSM can use a generic definition of value to satisfy both the customer and supplier orientations of the firm, since Figure 8A and Table 8E indicate that value characteristics clustered to each value-based strategy change between customer and supplier roles. Five other impediments prevent PSM's design, development and execution of value-based supply chain strategies. This author will now discuss those five impediments using the conceptual model (Figure 7D) to explore the survey data.

8.2 Value-based strategies and “value incongruence” within the firm

The sample was divided into three organisational levels corresponding to the three stages of value management described by the conceptual model (Figure 8B).

Figure 8B:
Analysis of survey respondents

Stage of Value Management	Survey colour	Firm level	Type of respondent	Analysis (tables and figures)	Value (In) congruence
Conceptualisation	Green	Upper	Chief executive or equivalent	Tables 8F, 8G, 8H Figure 8C	<p>Value GAP2</p> <p>Value GAP3</p>
Configuration	Blue	Middle	Functional head/co-heads of PSM	Tables 8I, 8J, 8K Figure 8D	
Implementation	Beige	Lower	Front line staff	Tables 8L, 8M, 8N Figure 8E	

The set of statistical analyses discussed in Section 8.1 -- cluster analysis, K-means comparisons, point construction, graph -- were rerun for each sub-grouping of the survey sample. The results of those analyses are contained in Tables 8F-8N and illustrated by Figures 8C-8E.

Table 8F: Cluster analysis (upper firm level)						
Cluster:	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	α	β	γ	α	β	γ
a. Customer Responsiveness		X			X	
b. Timely Supply			X		X	
c. High Quality G&S	X			X		
d. Efficient operating process		X			X	
e. Lower Prices			X	X		
f. Impact on profit		X			X	
g. Highly innovative	X					X
Names *	*	*	*	*	*	*

Notes:

(*) The clusters were not named because the characteristics in each cluster changed significantly at each organisational level.

Table 8G: K-means comparisons (upper firm level)						
Value Disciplines	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	Cluster	Value Characteristics	Label for cluster on Figure 8C	Cluster	Value Characteristics	Label for cluster on Figure 8C
I: Low Cost	β	a, d, f	1 _c	β	a, b, d, f	1 _s
II: Innovation	γ	b, e	2 _c	α	c, e	2 _s
III: Relationships	β	a, d, f	3 _c	β	a, b, d, f	3 _s

LEGEND a: customer responsiveness; b: timely supply; c: high quality goods and services;
d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

Table 8H: Point construction (upper firm level)					
Focal firm as customer (buy-side)			Firm as supplier (sell-side)		
Label for Cluster on Figure 8C	X	Y	Label for Cluster on Figure 8C	X	Y
1 _c	a – 14.92	I – 41.74	1 _s	a – 18.01	I – 41.74
	d – 9.1	I – 41.74		b – 16.15	I – 41.74
	f – 11.73	I – 41.74		d – 9.03	I – 41.74
2 _c	b – 20.89	II – 21.85	2 _s	c – 15.68	II – 21.85
	e – 15.17	II – 21.85		e – 15.9	II – 21.85
				a – 18.01	III – 33.84
3 _c	a – 14.92	III – 33.84	3 _s	b – 16.15	III – 33.84
	d – 9.1	III – 33.84		d – 9.03	III – 33.84
	f – 11.73	III – 33.84		f – 10.72	III – 33.84

LEGEND (TABLE 8H AND FIGURE 8C)

NOTES

- (1) Mean weights of value characteristics have not been restated to account for rounding errors in order to preserve data integrity.
 (2) Mean weights of value disciplines have not been restated to account for rounding errors in order to preserve data integrity.

CHARACTERISTICS
(X AXIS)

a: customer responsiveness; b: timely supply; c: high quality goods and services;
 d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

From perspective of focal firm as customer/buy-side (in circles) and as supplier/sell-side (in diamonds)

DISCIPLINES (Y)

I: Low cost provider; II: Product innovator; III: Customer relationship-based

CLUSTERS

1: Price; 2: Innovation; 3: Relationship

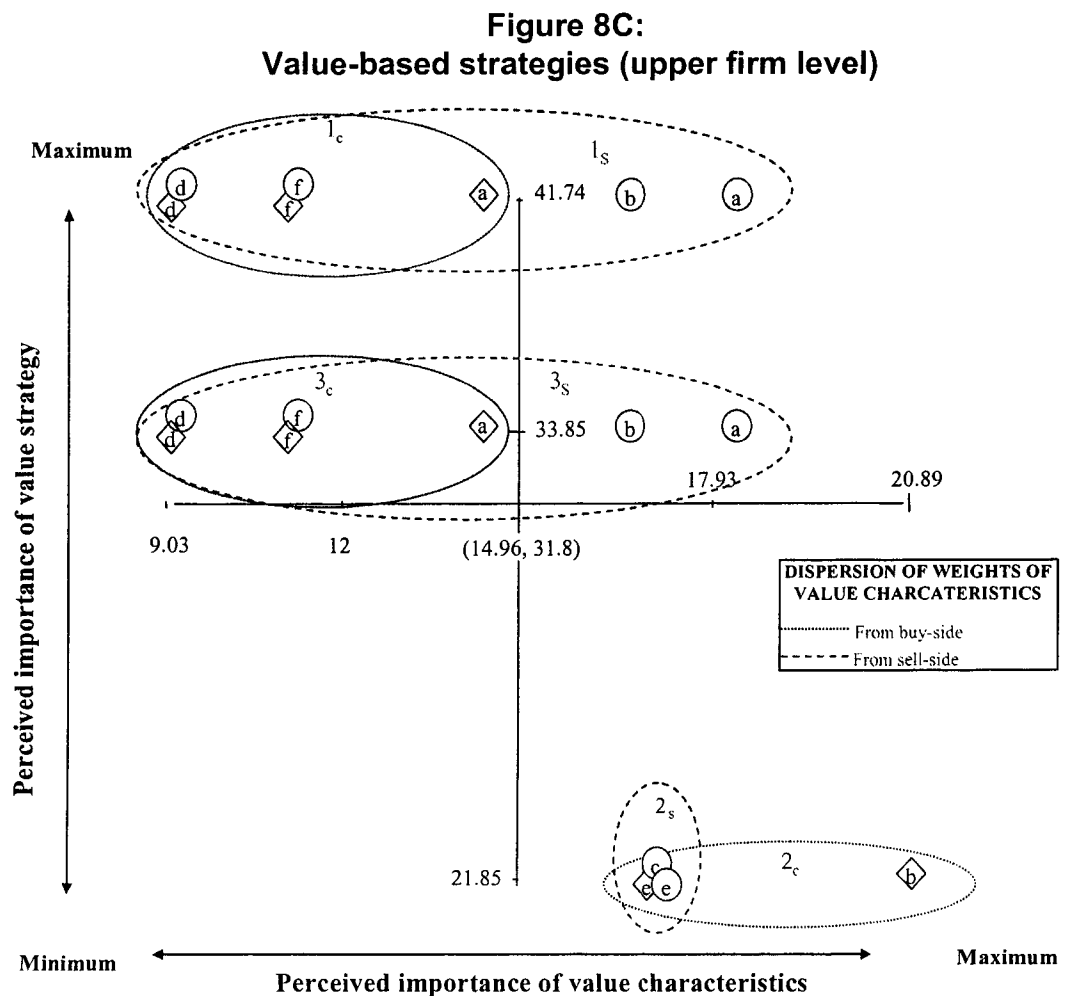


Table 8I: Cluster Analysis (middle firm level)						
Cluster:	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	α	β	γ	α	β	γ
a. Customer Responsiveness		X		X		
b. Timely Supply	X			X		
c. High Quality G&S	X					X
d. Efficient operating process		X				X
e. Lower Prices			X		X	
f. Impact on profit	X					X
g. Highly innovative		X				X
Names *	*	*	*	*	*	*

Notes:

(*) The clusters were not named because the characteristics in each cluster changed significantly at each organisational level.

Table 8J: K-means comparisons (middle firm level)						
Value Disciplines	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
	Cluster	Value Characteristics	Label for cluster on Figure 8D	Cluster	Value Characteristics	Label for cluster on Figure 8D
I: Low Cost	γ	e	1 _c	β	e	1 _s
II: Innovation	α	b, c, f	2 _c	γ	c, d, f, g	2 _s
III: Relationships	α	b, c, f	3 _c	α	a, b	3 _s

LEGEND a: customer responsiveness; b: timely supply; c: high quality goods and services;
d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

Table 8K: Point construction (middle firm level)					
Focal firm as customer (buy-side)			Firm as supplier (sell-side)		
Label for Clusters on Figure 8D	X	Y	Label for Clusters on Figure 8D	X	Y
1 _c	e – 19.57	I – 40.82	1 _s	e – 12.98	I – 40.82
	b – 20.67	II – 23.04		c – 15.01	II – 23.04
2 _c	c – 17.91	II – 23.04	2 _s	d – 7.22	II – 23.04
	f – 10.3	II – 23.04		f – 9.03	II – 23.04
				g – 9.18	II – 23.04
3 _c	b – 20.67	III – 36.13	3 _s	a – 17.04	III – 36.13
	c – 17.91	III – 36.13		b – 19.37	III – 36.13
	f – 10.3	III – 36.13			

LEGEND (TABLE 8K AND FIGURE 8D)

NOTES

- (1) Mean weights of value characteristics have not been restated to account for rounding errors in order to preserve data integrity.
 (2) Mean weights of value disciplines have not been restated to account for rounding errors in order to preserve data integrity.

CHARACTERISTICS
(X AXIS)

a: customer responsiveness; b: timely supply; c: high quality goods and services;
 d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

From perspective of focal firm as customer/buy-side (in circles) and as supplier/sell-side (in diamonds)

DISCIPLINES (Y)

I: Low cost provider; II: Product innovator; III: Customer relationship-based

CLUSTERS

1: Price; 2: Innovation; 3: Relationship

Figure 8D:
Value-based strategies (middle firm level)

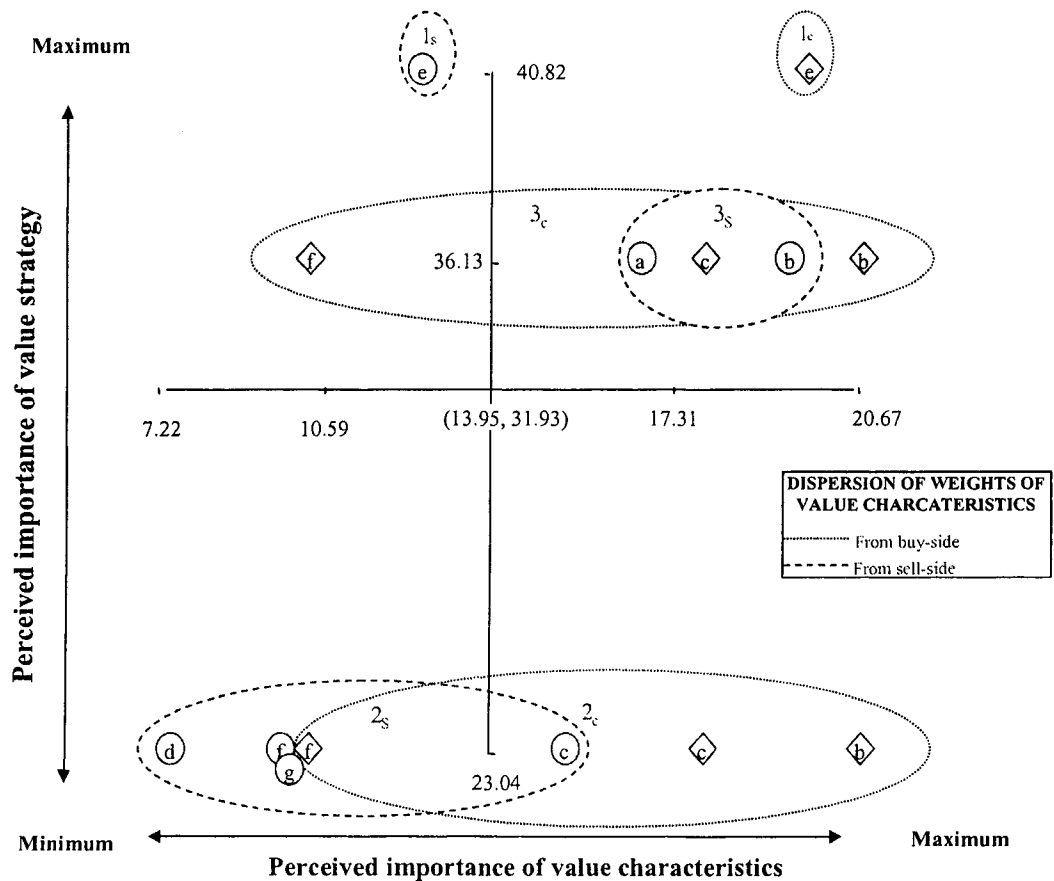


Table 8L:						
Cluster Analysis (lower firm level)						
	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
Cluster:	α	β	γ	α	β	γ
a. Customer Responsiveness			X	X		
b. Timely Supply		X		X		
c. High Quality G&S			X		X	
d. Efficient operating process			X		X	
e. Lower Prices		X		X		
f. Impact on profit	X					X
g. Highly innovative	X					X
Names *	*	*	*	*	*	*

Notes:

(*) The clusters were not named because the characteristics in each cluster changed significantly at each organisational level.

Table 8M:						
K-means comparisons (lower firm level)						
	Focal firm as customer (buy-side)			Focal firm as supplier (sell-side)		
Value Disciplines	Cluster	Value Characteristics	Label for Cluster on Figure 8E	Cluster	Value Characteristics	Label for cluster on Figure 8E
I: Low Cost	β	b, e	1 _c	β	c, d	1 _s
II: Innovation	α	f, g	2 _c	γ	f, g	2 _s
III: Relationships	β	b, e	3 _c	α	a, b, e	3 _s

LEGEND a: customer responsiveness; b: timely supply; c: high quality goods and services;
d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

Table 8N: Point construction (lower firm level)					
Focal firm as customer (buy-side)			Firm as supplier (sell-side)		
Label for Clusters on Figure 8E	X	Y	Label for Clusters on Figure 8E	X	Y
1 _c	b – 19.71	I – 38.30	1 _s	c – 16.03	I – 38.30
	e – 16.63	I – 38.30		d – 10.13	I – 38.30
2 _c	f – 10.46	II – 26.13	2 _s	f – 10.96	II – 26.13
	g – 10.56	II – 26.13		g – 9.93	II – 26.13
3 _c	b – 19.71	III – 35.57	3 _s	a – 17.97	III – 35.57
	e – 16.63	III – 35.57		b – 19.85	III – 35.57
				e – 10.57	III – 35.57

LEGEND (TABLE 8N AND FIGURE 8E)

NOTES

- (1) Mean weights of value characteristics have not been restated to account for rounding errors in order to preserve data integrity.
 (2) Mean weights of value disciplines have not been restated to account for rounding errors in order to preserve data integrity.

CHARACTERISTICS
(X AXIS)

a: customer responsiveness; b: timely supply; c: high quality goods and services;
 d: efficient operating processes; e: lower prices; f: impact on profit; g: highly innovative products

From perspective of focal firm as customer/buy-side (in circles) and as supplier/sell-side (in diamonds)

DISCIPLINES (Y)

I: Low cost provider; II: Product innovator; III: Customer relationship-based

CLUSTERS

1: Price; 2: Innovation; 3: Relationship

Figure 8E:
Value-based strategies (lower firm level)

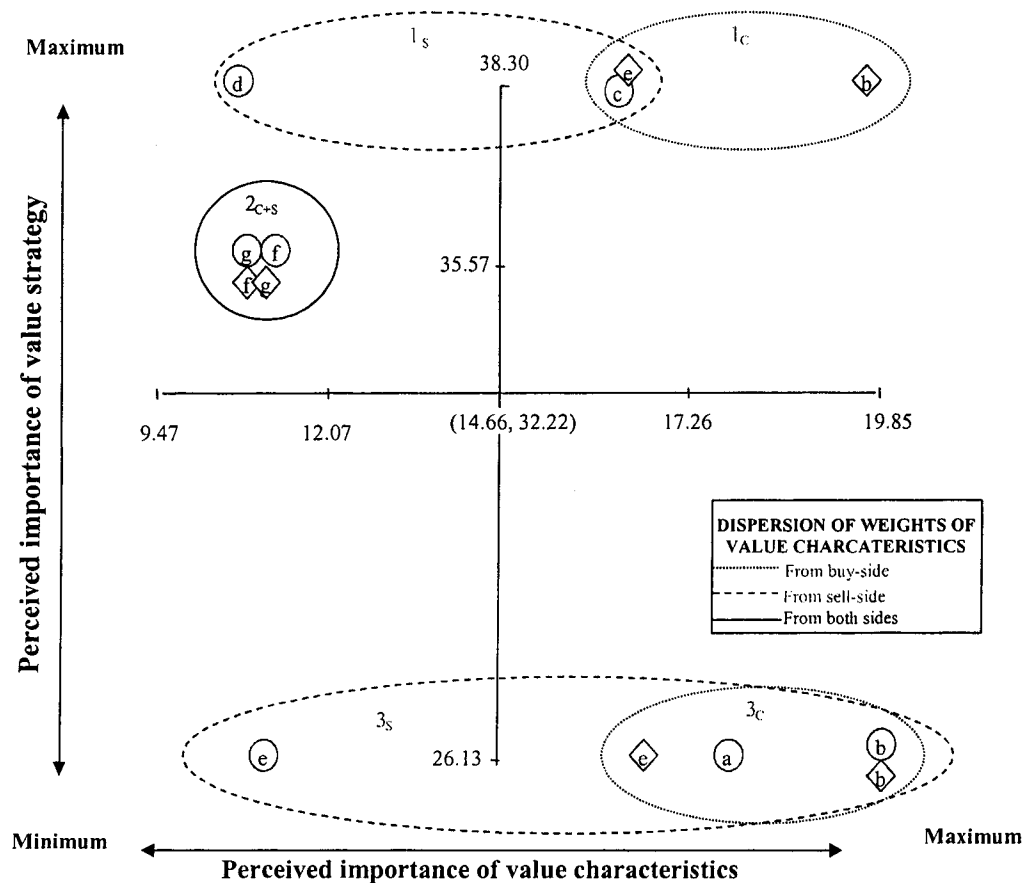


Table 8O summarises these findings in the context of value GAP 2 and GAP 3 from the conceptual model. These GAPS are a function of value misalignment (differences in the value characteristics associated with a given value strategy depending upon the role a survey respondent assumes, i.e. buy-side versus sell-side) and of value incongruence (differences in the characteristics associated with a given value strategy by survey respondents at two different levels of the firm).

Table 8O: Value Gap Analysis					
Firm Level	Focal firm as customer (buy-side)		Focal firm as supplier (sell-side)		Firm Level
	Value Discipline (Question 2)	Value Characteristics (Question 10+11)	Value Characteristics (Question 6+7)	Value Disciplines (Question 2)	
Upper management (Conceptualisation)	I: Low Cost	a, d, f	a, b, d, f	I: Low Cost	Upper management (Conceptualisation)
Middle management (Configuration)	I: Low Cost	e	e	I: Low Cost	Middle management (Configuration)
Front line staff (Implementation)	I: Low Cost	b, e	c, d	I: Low Cost	Front line staff (Implementation)
Upper management (Conceptualisation)	II: Innovation	b, e	c, e	II: Innovation	Upper management (Conceptualisation)
Middle management (Configuration)	II: Innovation	b, c, f	c, d, f, g	II: Innovation	Middle management (Configuration)
Front line staff (Implementation)	II: Innovation	f, g	f, g	II: Innovation	Front line staff (Implementation)
Upper management (Conceptualisation)	III: Relationships	a, d, f	a, b, d, f	III: Relationships	Upper management (Conceptualisation)
Middle management (Configuration)	III: Relationships	b, c, f	a, b	III: Relationships	Middle management (Configuration)
Front line staff (Implementation)	III: Relationships	b, e	a, b, e	III: Relationships	Front line staff (Implementation)

For example, all three levels weighted the low cost provider value discipline (I) as most characteristic of their respective organisations' mix of value-based strategies. The value characteristics comprising the low cost value discipline (I), however, change at each level. Upper management perceive "customer responsiveness" (a), "timely supply of goods and services" (b), "efficient operating processes" (d), and "impact on profit" (f) to add value to the organization. This perception changes markedly at the middle management level where the only characteristic perceived to add value is "lower prices" (e). Moving to the front-line level an interesting change occurs. "Timely

supply of goods and services” (b), “lower prices” (e), “high quality goods and services” (c) and “efficient operating processes” (d) are perceived to be most value-added.

These findings suggest that respondent firms as a whole may be experiencing serious difficulties between the conceptualization of a low-cost value proposition by upper management and the configuration of that same strategy by middle management (i.e., GAP 2). In addition, the survey findings also suggest considerable difficulty translating that value proposition between middle level management and front-line staff.

This author observes a more complex translation process when assessing the product innovator value discipline (II) and the customer relationship-based value discipline (III). The figures illustrate that senior executives, middle management and front-line staff across respondent firms perceive these two strategies to be of widely differing relevance to their respective organisations. The value characteristics associated with each cluster again change markedly by level further complicating the value translation process.

These differing interpretations suggest fundamental blockages in the value flows within the firms in the sample. It also suggests that PSM may encounter considerable difficulties in managing value-based supply strategies, since the definition of value changes by organizational level within the firm. But this view is strictly internal and only addresses GAP 2 and GAP 3 from the conceptual model. Customers and suppliers of the focal organisation also define value and, according to the literature and the conceptual model, must also align their definitions of value with the focal organisation. Analysis of GAP 1 and GAP 4 requires a dyad of firms (customer and supplier); GAP 5 requires a triad of firms. To ensure statistical validity, any quantitative analysis of GAPS 1, 4, and 5 would require a large number of dyads and triads of firms. Large-sample surveys are not conducive to gathering such “matched” data². For this reason the author conducted six in-depth case studies; he now turns to a discussion of the findings.

8.3 Value-based strategies across a triad of firms

Yin (1984) notes that the analysis of case study data is especially difficult due to a lack of rigorous case-based research strategies and techniques. As a result, he recommends

² Recall this author’s survey employed three colour-coded questionnaires, which mapped to the upper, middle and lower levels of the focal organisation. This author received surveys from 77 organisations in total comprising 42 single responses (only one colour returned), 29 double responses (two colours returned) and 6 triple responses (all three colours returned).

that every case investigation start with a general analytic strategy so that the researcher can prioritise what to analyse.

The first and more preferred strategy is to follow the theoretical propositions that led to the case study. The original objectives and design of the case study presumably were based on such propositions, which in turn reflected a set of research questions, reviews of the literature, and new insights. Yin (1984:100)

Yin (1984) suggests pattern matching logic as a tool to compare empirically based patterns with predicted ones.

In Section 7.6 this author discussed his use of a semi-structured interview protocol to explore four key areas during case interviews. These areas were selected based upon his conceptual model and research questions which were in turn derived from a detailed literature review. In Section 7.6 this author also described his use of open coding to classify case interview comments based upon a set of pertinent key words and phrases related to the conceptual model and to the research questions. This author scanned the resulting case interview subject index (Appendix C) to retrieve comments from the interview transcripts relating specifically to value gaps. These comments are stored in Tables 8P through 8T corresponding to GAPS 1 through 5. This author judged whether each comment represented evidence supporting or contesting the existence of that particular value gap in the case companies. These references were then 'plotted' using Figure 7I as a template to map interviewees to particular stages of the value model based upon their title, role and responsibilities (Figure 8F). This analytical approach mirrored this author's analysis of the survey data (recall Figure 8B).

Figure 8F: Analysis of case study interviewees*

		Supply Chain Perspective			
		Customer Organisation	Focal Organisation	Supplier Organisation	
Value Perspective	Value Conceptualisation Chief Executives (Green)	N = 2.333 22% (column) 22% (row) 4% (total)	N = 5 15% (column) 46% (row) 8% (total)	N = 3.5 21% (column) 32% (row) 6% (total)	N = 3.5 21% (column / total)
	Value Configuration Functional Heads (Blue)	N = 4.333 39% (column) 19% (row) 7% (total)	N = 14 43% (column) 61% (row) 23% (total)	N = 4.5 27% (column) 20% (row) 8% (total)	N = 4.5 27% (column / total)
	Value Implementation Front Line Staff (Beige)	N = 4.333 39% (column) 16% (row) 7% (total)	N = 13.5 42% (column) 51% (row) 23% (total)	N = 8.5 52% (column) 32% (row) 14% (total)	N = 8.5 52% (column / total)
		N = 11 18% (row / total)	N = 32.5 54% (row / total)	N = 16.5 28% (row / total)	N = 60 100%

* To avoid double counting individuals were proportionately 'allocated' based upon the specific roles they assumed.

Table 8P: GAP 1 Case Study References

Name	Role	Existence of GAP?	Comment
A _v ¹	F	Contesting	IQ4: Are you aware of the Ministry of Defence (MOD)'s value proposition, or what they define as value? A4: Do I understand my end customer's requirements? Well yes I do! The end requirement of my customer will be expressed differently by the MOD but they want the end product delivered on time with the most effective capability. We aim to deliver that. The value is for the end customer in the supply relationship, in this case, the military benefits from the help of industry and my own team. There is a relationship there that prescribes that!
B _{ve} ³ , B _v ²¹	CF	Contesting	IQ1: What is your definition of value? A1: From the customer (armed forces)'s point of view, getting operational capability and a certain amount of flexibility with what we get so that we are able to develop it at a cost that falls within our budget. IQ2: Is this definition of value communicated to the IPTs (Integrated Project Teams) directly? A2: Yes it is. They are very much aware, we have very close links between the customer (armed forces) and the. So they know what we want, they know that our resources are stretched, they try to get us the best value they can given the constraints, and the most cost effective alternative in terms of operational capability.
J _{ys} ³	S	Supporting	IQ5: Do they look to you as a supplier to help in the maximization of their value? A5: "I think so. I think they're looking at a world-class supplier that has a market leader position such as my company and look to us to see ways we're creating value propositions to our customers. They're trying to determine whether those are thought process that they need to jump on. We have these things that we call value propositions for all our customers that's done in a collaborative effort with management. It's quite apparent to me that they haven't had those kinds of discussions internally, because they don't have one overall 'This is what we do. This is our value proposition. This is what all the precepts are of that value proposition that are the underlining elements that make it into not a hollow statement but a work process towards fulfilling the value proposition'. The management level's 'got it' it's the levels below that don't. That's what I've seen".
I _{zc} ²⁴	C	Supporting	IQ5: If you lump all your commercial interactions with Company Z in three buckets -- Bucket One where you and Company Z are completely aligned on the same wavelength in terms of value definitions, Bucket Three where you're on opposite wavelengths, and Bucket Two somewhere in the middle -- what would your allocation of interactions be? A5: "60 % are on same page, 10% on wrong page and 30% in the middle. Where we're on the same wavelength is in terms of product specification for our particular industry which has special needs and we have special considerations for the environment in which we operate. Where we're now on the wrong page is on what these things ought to cost and how we can work together to get costs out of the system by working much more closely together". IQ6: Are they underestimating the importance of price to you? A6: "I think that is a possibility. Maybe it's more the standard push-pull where we're always looking for a better price but in fact what we're looking for is to remove all unnecessary costs and that extends not just to the price for current configurations but to reconfigure them."
O _{zc} ¹²³	C	Inconclusive	IQ4: Is it [company visits by customers] interesting, valuable, fun? A4: "Yeah, all of those. It's interesting. You know before you tour the factory, you say to yourself 'How the hell can a piece of equipment cost \$150,000. That's just ridiculous!' After you tour the factory, you think 'Gosh, how can they do it that cheap?' It does give you a different kind of perspective. I think it's valuable in that way. You get to know the company better. It's fun because every customer just loves equipment. It's great to see what's new, what's coming up, what other customers use, etc."
A _x ²⁴	F§	Supporting	IQ6: Is Total Value in your customers' minds the same as in yours? A6: "That depends upon how close that negotiator has gotten to that project team and that business. Sometimes there's a disconnect, yes. Sometimes they're lock step. I can't tell you that everybody across the organisation loves us because they don't necessarily. But there are a lot of organisations across the company that do and will not do business without a negotiator or someone from my staff there. And that's the way we want to do business around the organisation". IQ8: Could you put a rough estimate of project teams that are aligned with negotiators versus teams that are not aligned with negotiators? A8: "For IT where we've been doing this for six years, I'd say its 65% to 70 % totally aligned, 10% not at all aligned, and the rest in the gray area in between. Non IT where we don't have nearly as much experience with the other areas of the corporation: 35% - 40% are pretty much aligned, 35-40% are not, and the rest are in that grey area in between. That's just my gut feel. You'll probably get a different estimate from the negotiators you talk to".
D _x ²⁴	F§	Supporting	IQ9: What percentage of the teams you interact with fall into the following categories: (a) the concept of Total Value as you hold it is aligned with the concept of value as ultimately defined by the project team; (b) the concept of Total Value that supply management has is not aligned at all with the final concept of value by the team; (c) some grey area in between?

Table 8P: GAP 1 Case Study References

Name	Role	Existence of GAP?	Comment
			A9: "Probably (a) 60% (b) 10% (c) 30% if we're involved in the project. In general in terms of our customer base I'd say (a) 50% (b) 20% (c) 30%. Of the 60-10-30 population, the 60% are repeat customers usually, the one s in the grey area probably brought us in late and eventually will migrate to the 60%, and the 30% 'don't get it' and 'will never get it'".
E _x ^{3*}	F§	Supporting	IQ2: How would you characterise your involvement with teams using the following three categories: the percentage where there is (a) complete alignment between the way purchasing thinks about value and the way the team ultimately thinks about value (b) complete misalignment between the two definitions (c) shade of grey in between A2: "In my case, 10% no alignment, 30% total alignment and 60% somewhere in the middle". IQ3: How would you characterise the potential universe of things you could be involved with – individually based as well as team-based -- instead of just teams you have worked with? A3: "I would say that it would be higher on the total alignment because when it isn't a team process and you can do more one-on-one or one-on-two, you can spend more time explaining the process. So I'd say 50% on the total alignment, 40% in the middle, and 10% none. The only time I have no alignment usually is when the deal is done before it comes to me. Now that I have more repeat business, that percentage is falling".
O _{xc} ¹²	C§	Supporting	IQ4: How would you characterise your interactions using the following three categories: (a) your definition and their definition of the desired outcomes are completely aligned; (b) your definition and their definition are completely misaligned; (c) shades of grey in between. What percentage would fall into that timeframe over the last one year and four years? A4: "For one year: (a) 80% (b) 0 and (c) 20%. If we went back four years: (a) 40% (b) 5-10% (c) 50-55%"

Legend: Role indicates the firm in the triad the interviewee represents. F Focal firm; C Customer firm; S Supplier firm

Note: §Customer is an internal customer within the focal firm.

Table 8Q: GAP 2 Case Study References

Name	Role	Existence of GAP?	Comment
A _u ^{2*}	F	Supporting	IQ8: Are these issues communicated through the levels of Company U? A8: "This is very much limited to this project, however we have done similar types of integrated project teams on other projects, but they all work separately. Because we are a company of 3500 people, good ideas are not always fed upwards. Similarly, good ideas do not cascade downwards either. So, there isn't a process in place (other than me feeding back through my functional area) that details what we are doing here. It would be a great idea to feedback the pro's and con's. Unfortunately, we don't actually follow through on the learning we have obtained and the benefits we have obtained"
F _y ^{2*}	F	Supporting	IQ9: Has the firm lost track of its value proposition? You were a leader because you developed new products so you were an innovator. People's metrics were tied to innovation of developing new things. As it has become commoditized, what's your value proposition? A9: "I think there's something to that. We've spent some time on this over the past couple of years. One of G _y ¹ 's counterparts had a responsibility for product marketing and sales. He was struggling with that, with defining that value proposition. That's an interesting observation. We haven't transitioned into this whole thought process. Maybe that's part of the struggle. We used to be special and now we're a commodity". IQ10: Is Company Y's value proposition outlined on paper? Has it ever been? A10: "No. I don't think so. We've tried to verbalise it". IQ11: How about in your annual reports? A11: "Not that finite focused. Interesting isn't it? We're still struggling with it. We're looking for who and what we want to be going forward to our customers. Where do we want to fall along the spectrum? Do we want to continue to be innovators? Do we want to be the customer service leader? Do we want to be the low cost producer? Where do we want to compete? I mean you can't be everything; you have to pick a spot. How do we want to face the market and how do we want to build our systems in support of that? I think we're having a real hard time because we're still thinking we can be all those things. We can continue to be innovators, we can be the low cost producer, we can become customer service leaders. If you look at the big successful companies now, they find an icon and that's what they run behind. That's what everything is driven by. That's their identification in the

Table 8Q: GAP 2 Case Study References

Name	Role	Existence of GAP?	Comment
			marketplace. We're struggling with that. We see it in something as simple as our product offering. We've always had this idea that every product is there when the customer needs it that day, or that we're in a position to run it so that they can have it the next day. It's not even what the customer expects. We went out [and did some research] to support developing an inventory support and production planning system. The customer said 'If you have these eleven products all the time, we'll be happy. Give us an idea what you can do for the other products and do it consistently'. We got pushback! You would think people [at Company Y] would say 'Hallelujah! Let's figure this out.' The pushback was 'No, no. Our customers don't want that'. They told us: 'We can't do that because of this, that and some other thing. We know best how to schedule our plants. Our culture won't support it.' Wait a minute. This is not a bad thing. This is a good thing. I go back to my very first statement. Change here [at Company Y] is very incremental. It's a culture that is very change resistant".
J _{ys} ³	S	Supporting	<p>IQ6: Should you as a supplier have an impact on all the levels of the organisation?</p> <p>A6: "I do impact all the levels of the organisation. I impact the people who do the installation of equipment in all the facilities. I have an impact on the IT systems that run the manufacturing processes. I have an impact on the information that is gathered on each manufacturing process regarding productivity, consistency, quality, and so forth. When I work with all these different levels, I see that in parts it's connected and in other parts it's not connected in the way of what's understood to be valuable".</p> <p>IQ7: How would you know whether something is connected or not?</p> <p>A7: "Connected is when you have a mission statement that is out there in the annual report that is orchestrated between middle management and [executive] management in a certain way. I don't think that kind of message articulation structure is in place today as far as making things happens at the top level all the way down to the people that actually do the work".</p>

Legend: Role indicates the firm in the triad the interviewee represents. F Focal firm; C Customer firm; S Supplier firm

Table 8R: GAP 3 Case Study References

Name	Role	Existence of GAP?	Comment
J _{ys} ³	S	Supporting	<p>IQ6: Should you as a supplier have an impact on all the levels of the organisation?</p> <p>A6: "I do impact all the levels of the organisation. I impact the people who do the installation of equipment in all the facilities. I have an impact on the IT systems that run the manufacturing processes. I have an impact on the information that is gathered on each manufacturing process regarding productivity, consistency, quality, and so forth. When I work with all these different levels, I see that in parts it's connected and in other parts it's not connected in the way of what's understood to be valuable".</p> <p>IQ7: How would you know whether something is connected or not?</p> <p>A7: "Connected is when you have a mission statement that is out there in the annual report that is orchestrated between middle management and [executive] management in a certain way. I don't think that kind of message articulation structure is in place today as far as making things happens at the top level all the way down to the people that actually do the work".</p>
F _{xs} ³³	S	Supporting	<p>SQ1: Is there a difference between what Company X says it wants from you as a supplier, and what it actually demands?</p> <p>A1: "No, I just think you have many different departments wanting different things. One department is solely focused on cost, the next department is focused on a quality deliverable, the next department is focused on timeliness of delivery, another on customer service response times. Unfortunately, Company X doesn't communicate to their end users on what their goals of the contracts/business relationships are, thus each user has a different perspective of what the goal should be. It would ease some strain on us as a supplier and set expectations to their end users if they would quantify the goals of the contract and prioritize them, then notify everyone involved as well as notify everyone if those goals change as time moves on. We interface well with Purchasing and Information Technology, it's the various business units that are actually the end user, and those are the groups that do not know what expectations have been set between Company X and my company. Company X sets expectation of service to their suppliers, it just seems the actual end user isn't aware of what this is"</p> <p>IQ3: Do you ever notice differences in value as defined by purchasing versus the ultimate customer?</p>

Table 8R: GAP 3 Case Study References

Name	Role	Existence of GAP?	Comment
			<p>A3: "Definitely. That's the one comment I have. If there's any negative I've noticed with Company X – it's not really a negative – they communicate to the managers and then it's up to the managers to communicate to the end users which doesn't happen. So the end users don't know there's a ten-day window from the time the order is placed with us to the time we have to deliver. They have no idea of it. They have no idea of that. So to them, they can place an order and get it approved. It still has to go through a couple of internal processes within Company X before it gets to us. That could take anywhere from a couple of days to a couple of weeks. At times we'll get a call 'Where is this order?' and we don't even have the purchase order. And they're upset because they don't know that within Company X you need a week to two weeks to process, from the time the order is signed-off on to the time the purchase order gets created and sent to us. A lot of times we'll get an order and deliver it in three days so we're really performing. And the user says 'This has been three weeks! What's wrong with you people'. They don't understand what the standards are for the process".</p> <p>IQ5: Is this a significantly significant issue to impede your ability to deliver value to the ultimate customer?</p> <p>A5: "Yes definitely".</p> <p>IQ6: How would you characterise your interactions with Company X using three categories: (a) where your understanding of value and the end users expectations of value are completely aligned; (b) where there are serious differences; and (c) in between where there are shades of grey. So interactions (a) where the definitions of value are aligned (b) where they're seriously misaligned and (c) shades of grey in between.</p> <p>A6: "I would probably say we're aligned 35%, grey area 60%, and 5% would be where the end user is seriously not aligned with the expectation set through the agreement".</p>
F _y ²⁴	F	Supporting	<p>IQ3: What is the difference between values and goals?</p> <p>A3: "Goals are whatever people say they are. Value can be a lot of different things, but at the end of the day, value is whether the company is ultimately putting money in the bank. The value of the enterprise is how much money you put inside the bank. If you're not putting any money in the bank, you don't have any value. We seem to have a real difficult time sorting through that process in the company. There was a sales meeting yesterday and I understand the chairman was there and he was beating them up on that product cost goal because the Senior VP of Manufacturing was out there presenting. If demand is soft and we're not going to run out of capacity, we may not want to do better. That may not be how we make the most money. How do you get the chairman onboard with that when he's already made up his mind? If you take what we said earlier – that value is the premium we charge in the marketplace – I should not be looking at just plant production cost. I should be looking at Total Cost to get to that market. That's where we fall down. I shouldn't say we fall down along the way. But there is this undercurrent of whipping these guys to do something that could very well be in contrast to that goal. It's two different goals – it's not the same goal. They can't make their goal that you've assigned to them doing what they need to do to make the most money necessarily. If demand exceeds supply, great, it sorts itself out. If you're running at 99% or 102% of capacity, it's not a problem to make that goal. Next year we're probably going to run at 88% of capacity. Where does that 12% come out of? For them it should not be coming out of the lowest cost plant because then they can't make their cost goal."</p> <p>IQ8: Are there too many metrics?</p> <p>A8: "They don't line up. You've got conflicting goals. We've got a set of goals for one business unit that are in conflict with the goals of another. Inside a business unit, you have sales goals that don't necessarily line up with the manufacturing goals. This seems really silly to me. It seems really simple. And yet we struggle with it over and over. There's so much friction between different parts of the company."</p>

Legend: Role indicates the firm in the triad the interviewee represents. F Focal firm; C Customer firm; S Supplier firm

Table 8S: GAP 4 Case Study References

Name	Role	Existence of GAP?	Comment
A _n ²⁴	F	Supporting	<p>IQ9: Do you have a way of measuring suppliers?</p> <p>A9: "Well, yes, we measure supplier performance in terms of their delivery. What we don't do is measure their value performance. Except for our subjective opinions of our suppliers. We have some of our strategic suppliers who we subjectively measure as a major 'Pain in the arse!' usually because they cause a lot of problems and a lot of visits to the USA. But in terms of a definitive, objective measures, No, we do not have that".</p>

Table 8S: GAP 4 Case Study References

Name	Role	Existence of GAP?	Comment
			<p>IQ23: So to turn it around: What sort of things would you consider to be GAPs in value or misalignments between suppliers, Company U and the customer?</p> <p>A23: "In terms of our strategic suppliers we do not always get sight of their production lines and the problems that they are having. They are very protective of sharing failure or what would be perceived as failure. We have a process that every month we get a monthly progress report from them in a format that can be anywhere from 5 pages to 45 pages thick. In actuality all it does is turn things around to say it's our fault. And the only time we get visibility of issues that they're having is when they really are having issues where they can't get major parts from their supplier and the problem just moved deadlines by two months, 6 months 12 months, and that has happened. That's because they do not want to be perceived as failures and rather than trying to seek their customers help immediately they would rather just soldier on and tell you everything is OK, until actually it isn't. They can't really do anything about it, and then they say this is a major problem. We'll send a team over there to sit down with them, discuss issues, and offer them advice. Try and help them through it. Which usually means changing their delivery schedule with us, which is what they wanted in the first place"</p>
B _u ²⁺	F	Supporting	<p>IQ8: Is there one voice as these action groups communicate with suppliers?</p> <p>A8: "No. Because of the specificity of the products we require, all members of the group liaise with suppliers. This can be problematic particularly if different functions, for example engineering, have specific requirements for orders. They present perfectly drawn out descriptions of products that may exceed or not meet the contractual obligations negotiated with suppliers. This can cause serious delays".</p> <p>IQ9: How do you think suppliers perceive you? What do you think, they think you want?</p> <p>A9: "They probably don't know what we want. They probably think we want the cheapest product possible, maybe delivery doesn't matter that much. I think they think that we are dragging them down on cost, and still asking for more and more".</p> <p>IQ10: Does that marry with the way in which you measure them?</p> <p>A10: "I'm not sure that it does.... Again it is slightly aslant. I think the way we measure them, communicate our values to them is somewhat unclear. We don't sit down at the beginning of the program and say: 'Well actually what is important to us is.....' we sit down with a contract that contains a lot of legal niceties."</p>
D _{us} ²	S	Supporting	<p>IQ4: Are you aware of the value proposition that Company U has?</p> <p>A4: "Actually, no".</p> <p>IQ5: Would that help you guys achieve what you want to achieve?</p> <p>A5: "I'm not aware of what Company U values. Yes it would help, I think it would. We have run supply conferences- not with Company U- on a particular product where we had the end customer. MOD were present and just having them there was useful for the suppliers to understand things from the customer perspective. It was also good that senior buyers here could listen to the customer talk and understand where they were coming from. It really did put a different spin on perceptions of buyers here and what they did. So to understand our customers' values and translate them into what that means for us individually as an organisation; yes we should do that"</p>
F _{uc} ³	C	Supporting	<p>IQ7: If you were to rate how Company U perform or deliver what they say they are going to deliver, how would you rate them?</p> <p>A7: "If I were to listen to my colleagues, particularly those who have been around for a long time and have expertise in parts, they would say very poor".</p>
A _v ¹	F	Contesting	<p>IQ11: Do you find that they [supplier partnering codes of practise] are followed?</p> <p>A11: What we are saying is 'What do you think of the relationship?' That's how I interpret that question. On the whole the relationship is excellent. Despite very few difficulties, which I can't go into detail, associated with profit and loss of major programs. But these are just part of those challenges. I think we have done remarkably well under the circumstances to be able to keep that relationship intact in difficult times. There are peaks and troughs at different times. We are fortunate that we can turn to good leadership on either side to solve issues.</p> <p>IQ21: What is a problem area or misalignment between what you value as the MOD and your supplier values?</p> <p>A21: I think their values are only subject to the problems that we just described. If we are partners, then they understand that there are communication issues. We debate about short falls in performance. I think that the problems we have lie in the clarity of our communication, regarding the specifications for our end product. However, I don't think there are really any major misalignments. The challenge of this program is to produce the capability. If the supplier has problems in being able to deliver, then that in turn will effect us. We may have to assist them.</p>
B _{uc} ³ , B _v ²⁺	CF	Supporting	<p>IQ3: Is this definition of value communicated to your supply base?</p> <p>A3: Yes it is. If you mean suppliers i.e., industry, then yes it is communicated to them. The problem that we face is that they will still try and get what they can for the maximum</p>

Table 8S: GAP 4 Case Study References

Name	Role	Existence of GAP?	Comment
			amount of money. So we try and prevent that by keeping them appraised of what we want. We try and accommodate but we are run on a very tight administration so there is only so much we can give. So it is communicated -- whether or not it is taken on board is another question.
F _{xs} ²³	S	Supporting	<p>SQ1: Is there a difference between what Company X says it wants from you as a supplier, and what it actually demands?</p> <p>A1: "No, I just think you have many different departments wanting different things. One department is solely focused on cost, the next department is focused on a quality deliverable, the next department is focused on timeliness of delivery, another on customer service response times. Unfortunately, Company X doesn't communicate to their end users on what their goals of the contracts/business relationships are, thus each user has a different perspective of what the goal should be. It would ease some strain on us as a supplier and set expectations to their end users if they would quantify the goals of the contract and prioritize them, then notify everyone involved as well as notify everyone if those goals change as time moves on. We interface well with Purchasing and Information Technology, it's the various business units that are actually the end user, and those are the groups that do not know what expectations have been set between Company X and my company. Company X sets expectation of service to their suppliers, it just seems the actual end user isn't aware of what this is"</p> <p>IQ3: Do you ever notice differences in value as defined by purchasing versus the ultimate customer?</p> <p>A3: "Definitely. That's the one comment I have. If there's any negative I've noticed with Company X -- it's not really a negative -- they communicate to the managers and then it's up to the managers to communicate to the end users which doesn't happen. So the end users don't know there's a ten-day window from the time the order is placed with us to the time we have to deliver. They have no idea of it. They have no idea of that. So to them, they can place an order and get it approved. It still has to go through a couple of internal processes within Company X before it gets to us. That could take anywhere from a couple of days to a couple of weeks. At times we'll get a call 'Where is this order?' and we don't even have the purchase order. And they're upset because they don't know that within Company X you need a week to two weeks to process, from the time the order is signed-off on to the time the purchase order gets created and sent to us. A lot of times we'll get an order and deliver it in three days so we're really performing. And the user says 'This has been three weeks! What's wrong with you people'. They don't understand what the standards are for the process".</p> <p>IQ5: Is this a significantly significant issue to impede your ability to deliver value to the ultimate customer?</p> <p>A5: "Yes definitely".</p> <p>IQ6: How would you characterise your interactions with Company X using three categories: (a) where your understanding of value and the end users expectations of value are completely aligned; (b) where there are serious differences; and (c) in between where there are shades of grey. So interactions (a) where the definitions of value are aligned (b) where they're seriously misaligned and (c) shades of grey in between.</p> <p>A6: "I would probably say we're aligned 35%, grey area 60%, and 5% would be where the end user is seriously not aligned with the expectation set through the agreement".</p>
G _x ²⁴	F	Supporting	<p>IQ9: So are different sets of metrics used to negotiate the contract versus judge [supplier] performance?</p> <p>A9: "You need the same".</p> <p>IQ10: OK. You need the same. But what percentage of the time would you say that they're out of alignment?</p> <p>A10: "Right now? 70% percent".</p>
H _{xs} ³	S	Supporting	<p>SQ1: Is there a difference between what Company X says it wants from you as a supplier, and what it actually demands?</p> <p>A1: "Company X says it wants to partner with our company, but the RFP process and the business attitude promote withholding information. That makes partnership challenging. The more open they are with issues and opportunities the greater our chance at meeting their goals. As many customers are seeing the value of selecting a few suppliers and working toward more integration. Company X is doing less of that. The focus is on driving down cost of individual transactions versus a broader look. So they could be missing the scoring of millions focusing on smaller unique transactions".</p>
I _{xs} ³	S	Inconclusive	<p>SQ1: Is there a difference between what Company X says it wants from you as a supplier, and what it actually demands?</p> <p>A1: "Wants and values innovative products and services; demands lower price"</p>
C _y ²⁴	F	Contesting	<p>IQ10: How often are your supplier's views of what Company Y wants in alignment with what Company Y actually wants?</p> <p>A10: "We strive to do business with firms whose goals and objectives match ours. Who therefore understand what we're doing and what we're trying to do. Our suppliers know pretty well what we want."</p>
I _y ³⁴	F	Inconclusive	IQ7: Any difficulty keeping the company's definition of value aligned with those used by all your suppliers?

Table 8S: GAP 4 Case Study References

Name	Role	Existence of GAP?	Comment
			A7: "As I mentioned before, the vendors can value it any way they want. We're judge and jury on what the value is to us. We make our decisions based on our own internal criteria coupled with what we know is required by the customer out there in the field. That's the only driver. It's not up to discussion with the vendor. If this [the supplied materials] is value, we may not share with you what that value is. We'll reward you if it's a good product. If it's not so good, you'll know because the volume is decreasing. We're going in another direction. I never felt those things were subject to negotiation. They can bring it up to me and we can attempt to verify it. Are we seeing an efficiency gain? Are we seeing this or that? If we are I want to factor that in to my [sourcing] decisions. Otherwise I'm kidding myself. If both products are \$10 per ton but one has a 20% efficiency gain, this is not only a real disservice to the vendor but to our own sourcing decision making if we don't factor that in. Now I'm not going to be going back to that vendor and acknowledging a 20% efficiency gain with that product but it will be reflected with 'You can have a larger share of my business, no question'. That's how we would prefer to reward – that's the most efficient method for us. It keeps as much of the value in our pocket as well as rewarding them".
J _{ys} ³	S	Contesting	IQ2: Do you then deal with different people in the organisation each of which has his own definition of value? A2: "Yes". IQ3: Do those definitions of value conflict? A3: "Not significantly".
J _{ys} ³	S	Supporting	IQ8: How would you characterise all of your interactions with Company Y using the following three categories: (a) your definitions of value are totally consistent with those of Company Y; (b) your definitions are completely misaligned; and (c) a mixture of both. How would you allocate the percentage of your dealings with Company Y? A8: "60% of my dealings with Company Y we're at the same wavelength [a]. 10% ambivalent [c] and 30% completely different [b]. If you look at every organisation and all the different departments that are inside that organisation, you really almost have to look at it not as the aggregate organisation but you have to look at each of those component parts".
E _z ³⁺	F	Inconclusive	IQ4: How will you incorporate Company Z's definition of value in the selection of suppliers? A4: "We spell it out in our contract process and make it clear throughout the vendor selection process. We also (re)check with suppliers to ensure that they understand how we define value".
J _{zs} ²	S	Contesting	IQ5: How does Company Z measure your value-add? A5: "One thing about Company Z – which I like – is they take out the generalities in cost savings. You have to have one of their fifteen different formulas and if you can't plug the value in there to find the savings amount, it's not a savings. It can be hard or soft [savings] but it has to have some value which can be measured. I think that's been a really success here for Company Z, because we can show them the savings we have done".
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	S	Contesting	IQ3: At the end of the day, does price receive greater weighting on your overall evaluation? A3: "I don't think it is" [all three participants agreed]
P _{zs} ¹	S	Supporting	SQ1: Is there a difference between what Company Z says it wants from you as a supplier, and what it actually demands? A1: "Lowest price, not cost, is still THE most important measurement"

Legend: Role indicates the firm in the triad the interviewee represents. F Focal firm; C Customer firm; S Supplier firm

Table 8T: GAP 5 Case Study References

Name	Role	Existence of GAP?	Comment
A _u ²⁺	F	Inconclusive	A7: "...And that team will be working together looking at a better way for our customer to actually order future spares requirements from 2003 onwards. So it is looking at the process flow both from our customer into us as the prime contractor, and from us into our supply base, and down into their sub-tiers as well. Looking at a way to save hundreds of millions of pounds for the customer but in so doing creating a greater value of sale for ourselves because if you get the process right you can actually show the customer that we are interested in their problems and their needs. And although we will lose in terms of the short-term sales value of spares, long term we will gain because we will gain insight into the customer's real needs. Their infrastructure help resolve problems and hence release more millions of pounds into their and our supply base"

Table 8T: GAP 5 Case Study References

Name	Role	Existence of GAP?	Comment
			<p>IQ22: Have you found that with customers present, suppliers understand better that you are the 'next step' in a process that adds value to a product rather than just being their customer?</p> <p>A22: "Definitely, definitely! For once the supplier actually sees that we're not trying to screw them, we are actually helping the customer to understand the supplier's product, schedule, his price, what ever, but also we're trying to help the supplier understand the customers' needs. Because that's what we're there for, we are the prime contractor and we are trying to not only give some interpretation of different peoples languages in terms of American vs. English but also to give the correct understanding to our suppliers, as to exactly what our customer wants. And a lot of our US suppliers don't get that 1st time, 2nd time, or 3rd time..... This process does add value because we are talking to the customers and suppliers regularly, and the improved communication channel benefits us."</p>
B _a ²⁺	F	Inconclusive	<p>IQ13: If you could bring together a customer together with a supplier at the start, would that help create more effective value flow throughout the system?</p> <p>A13: "I think that bringing all parties involved together at the start would avoid a lot of non value adding activities. It would remove a lot of the cost of communication and a lot of the misinterpretation of what people really need (A lot of the overhead of a large program). In terms of that happening, there are lots and lots of barriers that have to be overcome. It does put you in a position of higher risk. By introducing your suppliers to your customers it may mean that you could be shut out of the dealings e.g., your supplier now deals with your customer. Which then effects your contract and your bottom line. There is a lot of trust required".</p>
D _{us} ²	S	Supporting	<p>IQ6: What do you think would be the biggest problem area in communication or delivery or relationships that could cause problems in translation of value from your organisation to Company U?</p> <p>A6: "Unclear requirements definition, which is my biggest issue, from a procurement point of view, not necessarily a customer issue. The way we define and then capture the requirement. The end user has a requirement, that requirement has to be distilled down right through the supply chain and then each function, marketing, procurement, design, and so on then draws out their own elements rather than it being interpreted by other people. The biggest area that will stop value from growing and translating to customers and end users will be unclear requirements definition".</p> <p>IQ7: So for you to add optimum value to the end customer, the exact customer specifications need to be flowed from the MOD to you directly, as opposed to translated and broken down at Company U and then translated or filtered to you?</p> <p>A7: "Yeah there needs to be a level of filtering, but there's probably too much filtering now. The MOD will probably want an IWS [Integrated Weapons System] from Company U performs in a certain way, I can't influence that. But in terms of system performance, engineering, then absolutely we need to understand the info that the customer expects, to enable the systems to perform. There are other sources of suppliers. We really need to understand ultimately the installed performance of an IWS, what the end user wants. At a commercial level as well; in terms and conditions. Terms and conditions aren't there just to act as a whipping stick when all goes wrong, they are there to add value. A process in terms of exploitation of virtual property there are ways around it, there are ways of adding value to the process. If you understand what the customer, in this case, Company U, want to do, then you can really work the issues at the ground level to make sure we don't source components that we can't then sell on to some country that Company U are actually targeting in their 10 year plan. So there is a lot of information that we do have but a lot more that we could actually use as well"</p>
F _{uc} ³	C	Inconclusive	<p>IQ6: Do you have any role in communicating to Company U's suppliers what you desire as a customer or do you leave that to Company U?</p> <p>A6: "It's Company U's job to do that. They have to manage their subcontractors. We are not allowed to manage their subcontractors. Having said that we do a lot of work with another major contractor and some of the smaller contractors. We would rarely if ever have meetings or do work with them that didn't involve Company U because our contract isn't with these subcontractors it's with Company U. We are clear that they understand what is required by us."</p>
B _{vc} ³ , B _v ²⁺	CF	Supporting	<p>IQ4: Do you see IPTs [Integrated Project Teams] as being a beneficial move in achieving your objectives?</p> <p>A4: Yes. Compared with what has happened in the past, I think it is definitely a step forward. There are lots of improvements that we have made. It gives us the ability -- we in the Armed services, the MOD -- a chance to communicate to industry what we want. In the past that has been lacking. In the past, where money wasn't really a problem, we had open contracts where the more money we threw in the more we got on our IWSs [Integrated Weapons Systems]. So it is a hell of an improvement on that. The way the IPT is structured and the way it works, right down to the work place where we all sit across from each other, we communicate very well I think. Certainly the feedback from our customers i.e., the MOD and the customer (armed forces), has been very positive. In the past there was a lot of poor communication that in turn was badly communicated to industry, so all in all I would say the IPTs work well.</p> <p>IQ5: Did you get access to prime contractors and their suppliers? How far into the supply base did you go?</p>

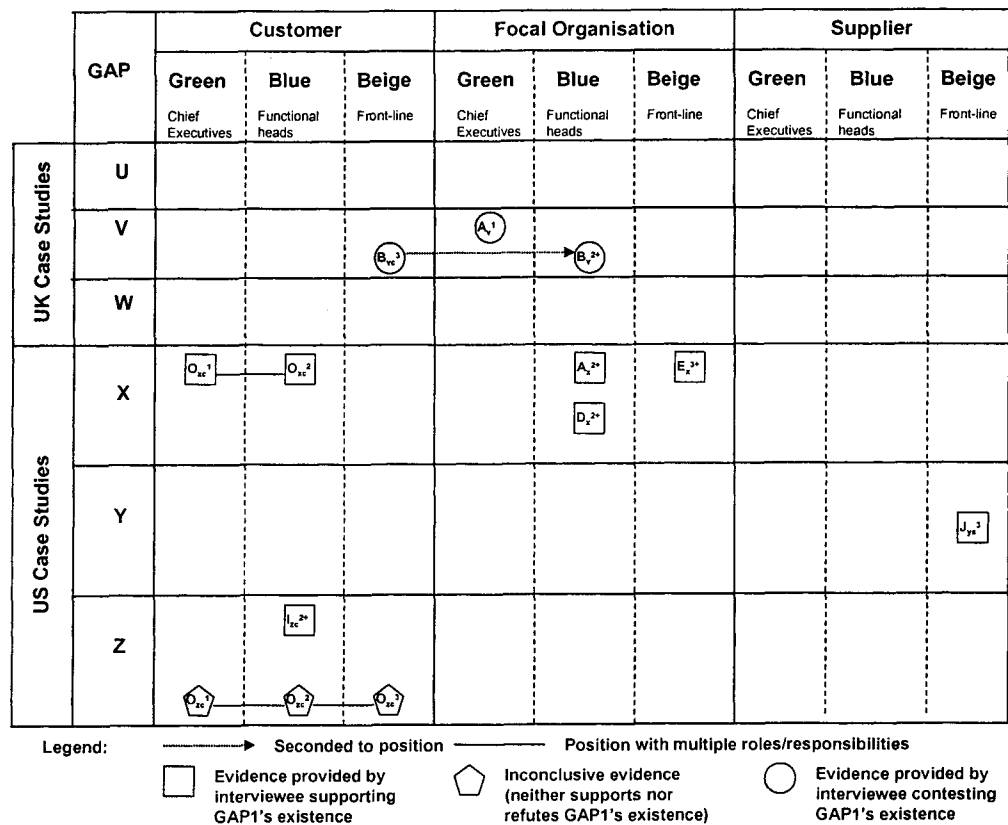
Table 8T: GAP 5 Case Study References

Name	Role	Existence of GAP?	Comment
			<p>A5: Yes. As the customer (armed forces) representative on the IPT I worked very closely with industry, prime contractors, their engineers right across the board because obviously there are many compartments, and I had access to all of them. To make sure that what they were doing is what we want. And sometimes in the early stages particularly you have to go out to sub-contractors to answer what it is that you as the armed services want and what they as the supplier can provide. I have worked quite closely with industry suppliers that are sub-contractors to our prime contractors and we have quite a healthy relationship with them. But you have to be careful because if you are working with them it is very easy to bypass the prime contractor and that sometimes isn't too smart because the prime contractor has the power of veto, but generally we all work together. So we have no trouble getting access to sub-contractors.</p> <p>IQ6: Do you think that that is an effective way to communicate what you value as a customer?</p> <p>A6: Yes. It's pretty central. It's important that no matter what is written in the contract or performance specifications, something will get lost in translation. We have talked to sub-contractors and they have alerted us to problems that we have overlooked or factors that may cause problems. This has occurred a number of times.</p> <p>IQ7: Do you think that this communication channel adds the most value to the product?</p> <p>A7: I would certainly rate it as one of the highest. I'm sure you are aware that the armed services ...we are a dinosaur, we are not in industry, we are not trained in business management, so we are quite clumsy in the way we articulate what we want. We are getting smarter but it is a whole process. So I guess at the end of the day we are able to communicate in an open way and get what we want delivered. This way you are more likely to get what you want and as such you are getting more value.</p>
I _y ³⁺	F	Inconclusive	<p>IQ6: Do your suppliers know what your customers' definition of value is?</p> <p>A6: "Indirectly they hear it. However, I think we might almost confuse them because there are so many different hot points for different customers in different geographies and we have different products that attempt to address each of those markets. For a raw materials provider – say a latex supplier -- it may confuse them more than anything else"</p>
A _z ³⁺	F	Contesting	<p>IQ11: How closely are the definitions of value as defined by the customer and what you expect from/communicate to your suppliers?</p> <p>A11: "I think they're very close"</p>
F _z ³⁺	F	Contesting	<p>IQ5: Do Company Z's suppliers know what Company Z's customers want?</p> <p>A5: "I would say yes our definition of value is well known by our suppliers. [On the indirect side] we have a number of programmes in place for our preferred suppliers where this is communicated. And we expect value from our suppliers".</p>
G _z ³⁺	F	Contesting	<p>IQ4: Would your suppliers of indirect materials be able to define what value means to Company Z's customers?</p> <p>A4: "Yeah, I think they could try and they'd probably use the five measures from our supplier development programme"</p>

Legend: Role indicates the firm in the triad the interviewee represents. F Focal firm; C Customer firm; S Supplier firm

The resultant Figures 8G through 8K suggest that case companies are having mixed success achieving uninterrupted value flows across their value chains as manifested within the triad³.

Figure 8G: Case study references (GAP 1)



³ This section summarises the research findings from over one hundred hours of interviews. The reader is directed to Appendix D which contains a conference paper this author delivered on 15 April 2003 at the 12th International Purchasing and Supply Education and Research Association (IPSERA) conference in Budapest. The paper further details this section's qualitative research findings.

Figure 8H: Case study references (GAP 2)

	GAP	Customer			Focal Organisation			Supplier		
		Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line
UK Case Studies	U					A ₂ ^{2*}				
	V									
	W									
US Case Studies	X									
	Y					F ₁ ^{2*}				J ₂ ²
	Z									




Legend:  Evidence provided by interviewee supporting GAP2's existence  Inconclusive evidence (neither supports nor refutes GAP2's existence)  Evidence provided by interviewee contesting GAP2's existence

Figure 8I: Case study references (GAP 3)

	GAP	Customer			Focal Organisation			Supplier		
		Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line
UK Case Studies	U									
	V									
	W									
US Case Studies	X								F ₂₂ ³ — F ₂₂ ³	
	Y									J ₂₂ ³
	Z									





Legend:  Evidence provided by interviewee supporting GAP3's existence  Inconclusive evidence (neither supports nor refutes GAP3's existence)  Evidence provided by interviewee contesting GAP3's existence  Position with multiple roles/responsibilities

Figure 8J: Case study references (GAP 4)

	GAP	Customer			Focal Organisation			Supplier		
		Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line
UK Case Studies	U			F _{uc} ³		A _u ^{2*} B _u ^{2*}			D _{us} ²	
	V			B _{uc} ³	A _v ¹	B _v ^{2*}				
	W									
US Case Studies	X					G _x ^{2*}		F _{ss} ²	F _{ss} ³ H _{ss} ³ I _{ss} ³	
	Y					C _y ^{2*}	I _y ³			J _{ys} ³
	Z						E _z ^{3*}	K _{zs} ¹ P _{zs} ¹	J _{zs} ² L _{zs} ² M _{zs} ²	

Legend: Seconded to position Position with multiple roles/responsibilities
 Evidence provided by interviewee supporting GAP4's existence Inconclusive evidence (neither supports nor refutes GAP4's existence) Evidence provided by interviewee contesting GAP4's existence

J_{ys}³ provided evidence both supporting and contesting GAP4's existence.

Figure 8K: Case study references (GAP 5)

	GAP	Customer			Focal Organisation			Supplier		
		Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line	Green Chief Executives	Blue Functional heads	Beige Front-line
UK Case Studies	U			F _{uc} ³		A _u ^{2*} B _u ^{2*}			D _{us} ²	
	V			B _{uc} ³		B _v ^{2*}				
	W									
US Case Studies	X									
	Y						I _y ³			
	Z						A _z ^{3*} F _z ^{3*} G _z ^{3*}			

Legend: Seconded to position Position with multiple roles/responsibilities
 Evidence provided by interviewee supporting GAP5's existence Inconclusive evidence (neither supports nor refutes GAP5's existence) Evidence provided by interviewee contesting GAP5's existence

8.4 Conclusion

This chapter has reviewed findings from this thesis's research. To accomplish this objective, this author reviewed the results of a broad survey documenting a shift in the definition of value on the buy- and sell-sides of organisations; examined the results of the survey which also demonstrate a shift in the definition of value across the different levels of organisations; and discussed case-study findings indicating misalignment of value definitions across the supply chain as manifested in several triads of companies. In the next chapter, the author will discuss his research conclusions for this thesis's four research questions. He will close the thesis with reflections on its academic contributions and a discussion of potential future research.

CHAPTER NINE:
DISCUSSION OF RESEARCH CONCLUSIONS AND
REFLECTIONS

9.0 Purpose

The purpose of this final chapter is to summarise the conclusions from the research study. This study was based on four key research questions (Table 9A).

Table 9A: Research conclusions for this thesis		
Question	Description	Conclusion
One	How is the term value defined and interpreted within the firm?	Value may be defined as a focussed strategy that pulls from a wide range of characteristics. As such, it cannot be defined as a generic term; it is context specific. Value may be properly viewed as the result of a summary valuation process conducted by the firm's multiple stakeholders.
Two	Does the definition or interpretation of value within the firm change depending upon one's assumed value chain perspective?	As value is translated by a firm's functions, its meaning often changes resulting in "value misalignment" occurring between parties across the value chain. "Value misalignment" is especially evident at the intersection of the firm's buy- and sell-sides.
Three	Does the definition or interpretation of value change at different operational / management levels within the value chain?	As value is translated by individuals holding different managerial/operational levels, its meaning often changes resulting in "value incongruence" occurring between parties across the value chain. "Value incongruence" is especially evident whenever different managerial/operational levels have conflicting goals and objectives.
Four	How might a firm improve its "management" of value?	This author advances an overall framework for the Integrated Value Process. The framework is comprised of a conceptual model that identifies and measures the five major "value gaps" where "value misalignment" and "value incongruence" occur within a firm's value chain. This model encompasses value's conceptual usage as an adjective, verb and noun at three different operational/managerial levels. The model is informed by the five value first principles reviewed in Chapters Two through Six and is empirically tested.

Each of these questions will now be discussed in light of the research work undertaken. The author will close the thesis with reflections on its academic contributions and a discussion of potential future research.

9.1 How is the term value defined and interpreted within the firm?

Research conclusions:

In Section 7.2 this author defined value as a focussed “value strategy” which pulls from a wide range of “value characteristics” (Figure 7A). The survey questionnaire confirmed that individuals associated particular value characteristics with particular value-based strategies. This association, however, was not straight-forward.

Case studies documented that individuals consider value to be a multi-dimensional concept (i.e., *multi-faceted*¹) -- the product of some summary valuation process (i.e., *sum of characteristics, product of weighted definitions*)². For example, this summary valuation process³ was evidenced by case company strategic sourcing processes where case study interviewees would specify a range of criteria for determining the selection of supplier(s). Interviewees rated or graded vendors against those evaluative criteria. The valuation purportedly included both hard (objective) as well as soft (subjective) estimates of value (i.e., *value as tangible and intangible*).

Objective value measures were generally cost-based and expressed quantitatively. Although the measurement of “total cost” differed by firm or by strategic sourcing team (i.e., *Total Acquisition Cost, Total Cost of Ownership*), the cost components were treated the same. They were (a) monetized, (b) summed and (c) compared by vendor. Subjective *value* measures were viewed as part of an *interpretive process*, as a *perception-based concept*⁴, and expressed qualitatively. Subjective measures are relative and differed across individuals (*value perceptions differ*).

¹ Italicized words are keywords from the case interview subject index (Appendix C) referencing particular interviewee quotes.

² The classical school of economics, described in Section 5.1, incorporates the adding-up function (process) in its theory of value. This author notes in the same section that the “adding-up” function conceptualizes value as a noun.

³ This author borrows Holbrook (1999:8)’s phrase “summary valuation” introduced in Section 6.2 in order to avoid defining the value process as an “adding-up” function. This author favours Ramirez (1999) who describes the value process as a *reconciling* or *combining* of multiple views of value. Ramirez (1999:49) notes: ‘Twenty years ago car assembly lines ... were argued to be keystone to prevailing 20th century concepts of human management. It is thus hardly surprising that industrial value production was conceptualized in terms of the value chain. With the chain concept, value creation is not only sequential, but also implies that value is “added”.’ This author notes that, as a result of assuming an “adding-up” view of value, nearly all supply chain thinking conceptualizes value as a noun.

⁴ See Sections 6.3 and 6.4 where this author discusses customer value perceptions and the difference between customer service expectations versus perceptions as a basis for identifying service (value) gaps.

The strategic sourcing process in case study organisations was designed to combine soft, qualitative, utility-based measures of value with hard, quantitative, cost-based measures of value. The intended result of the process -- the optimum or best available value offered by suppliers -- was described by case interviewees as a *total package*, *total solution* or *total value*. Yet case study organisations had a hard time describing or identifying the summarization process used to combine these two views of value – value as a noun and value as an adjective. This was true even at Company X where senior management claimed to use the Balanced Scorecard as a performance management system. It was common for one definition to “trump” another although case interviewees might not articulate how or why that occurred. Perhaps for this reason several case study organisations were keenly interested in this author’s empirical model which they anticipated might help them collectively understand *the value translation process* occurring across their respective organisations.

Reflections:

In Figure 5E this author categorized the alternative economic theories of value into three groupings: (1) preference-based, (2) exchange-based and (3) production-based theories. This author noted that the measurement of value in each of these categories – (1) utility, (2) price and (3) cost – differed with price serving as the market-clearing mechanism between utility (value as an adjective) and cost (value as a noun). Recall from Section 4.4. that *transaction cost economics (TCE)* posits that the internal co-ordination of economic transactions within the firm is an alternative to market exchange when price is an inefficient mechanism. A replacement mechanism for exchange prices is needed to bridge utility (i.e., consumer value) and cost (i.e., production value) whenever transactions are internally organised. This author posits that his empirical model explicitly forces examination of that bridging mechanism, i.e. the translation of value from conceptualization through to implementation. The model suggests that value gaps will always result whenever a firm operates according to only one definition of value.

9.2 Does the definition or interpretation of value within the firm change depending upon one's assumed value chain perspective?

Research conclusions:

The survey questionnaire confirmed that conditions a, b, c and d⁵ outlined in Section 7.2 are frequently violated resulting in “value gaps” which may impede the flow of value across the surveyed firms’ respective value chains. Case studies confirmed that different firm stakeholders – customers, marketing, manufacturing, finance, purchasing, and suppliers – had very different conceptualizations of what constitutes value (*value definitions differ by function, by role*). Stakeholder theory assumes an unspecified value process to arbitrate between the expectations of these diverse communities; for example, between the immediate customer and the ultimate customer (*value definition by ultimate customer*) or between the more immediate interests of the City/Wall Street (*value definition by shareholders*) and those who may hold a longer-term view. This conflict was sometimes manifested in the supply management function itself (*supplier contract negotiations and relationship management, split between roles*) demonstrating that even individuals within a single stakeholder group can hold different and sometimes conflicting goals and objectives (*principal-agent, assuming what’s best for everyone*).

As a result, case study companies are experiencing what appear to be breakdowns in their value processes stemming from incongruent value definitions (*value disciplines, migration and misalignment*) across their buy- and sell-sides. If one’s position in the value chain strongly influences the goals and objectives one holds, differing definitions of value will undoubtedly result. Unless understood alternative definitions of value increase the likelihood of ‘value misalignment’ occurring up and down the value chain. An uninterrupted flow of value becomes increasingly improbable.

⁵ Using a value-based business strategy implies that (a) the firm’s value-based strategy is agreed upon by both the buy- and sell-sides of the firm, (b) that each side understands the characteristics the other side associates with that strategy, (c) that the customer’s buy-side and the firm’s sell-side understand the characteristics that each side associates with the value-based strategy and (d) that the firm’s buy-side and supplier’s sell-side do likewise.

Reflections:

In her empirical study of strategic cost management across five firm triads Ellram (2002) concludes that goal and objective alignment has not yet been achieved i.e. there is misalignment at the intersection of the buy- and sell-sides across the five firm triads she studied. Ellram (2002) notes:

Taking a seamless view of strategic cost management across the supply chain is not yet a reality. In most cases, the inbound view of the supplier is handled by a different team/organisation than the outbound supply chain view to the customer. It is critical that somewhere in the middle, the organisations dealing with the customers make sure that the customer value proposition is clearly communicated to the organization dealing with the supplier. It is essential that internal organisation goals and objectives be aligned in order to align the goals and objectives of the supply chain. Ellram (2002:19)

This raises important issues for PSM academics and practitioners regarding an organisation's ability to manage value flows across the value stream. Value stream management (Section 6.2), lean thinking (Section 6.2), and lean supply (Section 6.4) argue the need for uninterrupted flow of value across the value chain. Based on Ramírez (1999) uninterrupted value flows are highly unlikely if the organisation or dyad of organisations (buyer-seller) represent complex systems. Ramírez (1999), referencing Alan (1979) [*Entre le Cristal et la Fumée: Essai sur l'Organisation du Vivant*. Paris: Éditions du Seuil], contends that goal misalignment is an intrinsic characteristic of complex systems:

As opposed to 'complicated' systems where (a) variables, (b) their dimension and (c) their purpose in the system are known, 'complex' systems are those in which one or more of (a), (b) and/or (c) is not known. Managing complex systems thus requires managing ignorance, which often extends to the system's very objectives" [emphasis added] Ramírez (1999:58)

Value is inseparable from the firm's goals and objectives; goals and objectives are the realm of value conceptualised as a verb (i.e., 'What should we [as an organisation] be doing?'). Ellram (2002) above observes that goals and objectives are different across the firm's buy- and sell-sides. Ignorance of buy-side versus sell-side goals and objectives would imply ignorance of the other's definition of value and vice versa. Ignorance of upstream (i.e., buy-side) value definition(s) versus downstream (i.e., sell-side) value definition(s) leads to incongruent value definitions across the value chain. Interruptions in value flows are likely to occur from the resulting value gaps.

9.3 Does the definition or interpretation of value change at different occupational / management levels within the value chain?

Research conclusions:

The survey questionnaire documented that conditions e and f⁶ outlined in Section 7.2 are frequently violated in respondent firms. “Value gaps” result which may impede the flow of value across the surveyed firms’ respective value chains. Interviews with employees of case study organisations, their customers and their suppliers document instances of “value incongruence” occurring across organisational levels. The degree of value (in)congruence differed across the six case study triads suggesting that some firms have achieved better linkages across the different organisational levels.

PSM’s value contribution was seen to be visible at varying organisational levels across case study organisations. For example, on the one hand PSM’s value contribution is not explicitly recognized at Company X’s highest organisational levels (*Balanced Scorecard*). On the other hand, the value of PSM is discussed by Company Z’s chairman in the company’s annual reports and is explicitly measured above and beyond pure cost savings realised (*vendor assessment, achieving excellence*). This suggests that it is more difficult for Company X’s head of PSM to assume a broader definition of value than it is for Company Z’s equivalent⁷. Perhaps this explains the survey findings (Section 8.2) that PSM functional heads focussed exclusively on price when defining a “Low Price” strategy even though chief executives above them and front-line staff below them adopted a broader definition of “Low Cost” strategy.

Value is seen to be inseparable from the firm’s goals and objectives. Case study individuals detect value (in)congruence by assessing the degree of goal and objective alignment between the different levels within their respective organisations (*goals and objectives, cascading and linkages between*). Unfortunately, the survey

⁶ Using a value-based strategy implies that (e) the firm’s value-based strategy is agreed upon by the different organisational levels of the firm and that (f) each organisational level understands the characteristics that other levels – or at least the next level with which one immediately interacts – associate with the firm’s value-based strategy.

⁷ See Section 8.2.

questionnaire and case study interviews could not control for the organisational level of individuals interviewed at customers and suppliers. Conditions g and h⁸ outlined in Section 7.2 could not therefore be sufficiently tested. If one ignores the organisational level of the case study interviewee, multiple instances of value incongruence (GAPS1 and 4) were documented (Figures 8E and 8H) at the dyad unit of analysis suggesting that value gaps are not uncommon between buyer and seller organisations. One case of value congruence and one of value incongruence (GAP 5) were documented (Figure 8I) at the triad unit of analysis; no research conclusions were drawn at the triad level.

Reflections:

Several interviewees reminded this author: ‘What gets measured gets done’ (*goals and objectives, what gets measured gets done*). PSM’s value contribution is often measured at case study organisations by the pure cost savings they have realized, a fact which may encourage hard (quantitative) versus soft (qualitative) measures of PSM’s activities. Yet Ramírez (1999:61) posits two views of value production: an “industrial view” in which ‘all managed values can be measured in monetary terms’ and a “co-productive view”⁹ which recognises that ‘some managed values cannot be measured or monetized’ [emphasis added]. In other words, as Einstein is claimed to have remarked: ‘Not everything that can be counted counts; and not everything that counts can be counted’.

This has two potentially serious implications for value flows. Firstly, as Maisel (2001) observes:

If it’s true that ‘what gets measured gets managed’, then today’s businesses are focused on financial results. This raises an interesting question: if most companies’ performance measurement systems are not being used to support key business processes and critical management practices, then what is being used as the strategic management system? Maisel (2001:4)

⁸ Using a value-based strategy implies that (g) the individual on the customer’s buy-side interacting with the individual on the firm’s sell-side both understand the characteristics that each side and level associates with the value-based strategy and that (h) the individual on the firm’s buy-side interacting with the individual on the supplier’s sell-side do as well.

⁹ See Sections 4.6 and 5.5 where this author contrasts Normann and Ramirez (1993)’s concept of the value constellation (“co-productive view”) with the value chain (“industrial view”).

The assumed summary valuation process (Section 9.1) by which strategic sourcing teams are meant to integrate quantitative and qualitative measures of supplier value may not in fact exist or be used at all in some organisations. Yet if value is perception-based and/or value cannot always be monetized, value gaps are certain to occur in organisations lacking such a process rendering a seamless flow of value unlikely across their value chains. Secondly, several case interviewees occupy multiple roles. Ramírez (1999) posits this to be a feature of the newer “co-productive view” of value creation.

A value co-production view emphasizes that economic actors hold different roles in relation, not only to *different* counterparts (one is one’s suppliers’ customer; one’s customers’ supplier), but also in relation to a *single* counterpart. For example, one economic actor ‘A’ may simultaneously be (i) a supplier to another economic actor ‘B’, (ii) as well as a customer of economic actor ‘B’, (iii) as well as a competitor of economic actor ‘B’, (iv) as well as a partner with ‘B’ to co-produce value with and for a third economic actor ‘C’.... Ramírez (1999:54)

Yet Ramírez (1999:54) also asserts that the ‘simultaneous holding of multiple roles ...would require managing incompatible operational priorities, not only diverse one’ [emphasis added].

This author noted in Section 3.1 that the literature supports the position that it is either very difficult or impossible for PSM to optimize a common objective within a single firm, since the firm is a collection of stakeholder groups with multiple and (likely) conflicting objectives. This author noted in Section 4.5 that multiple authors questioned whether joint value objectives could even exist at the network level. Although not concluding it to be impossible, Fawcett and Magam (2001)’s empirical study of US companies’ supply management practices leads the reader to believe that goal and objective alignment at the value chain level is not likely to occur:

There is little resemblance between the theory of supply chain management and actual practice. Nobody is currently managing the entire supply chain from suppliers’ supplier to customers’ customer. Very few companies have created the ‘end-to-end’ transparency needed to engage in full-fledged supply chain management. Among the very best supply chain companies, integrative practices span [only] a triad of companies—typically up and downstream one tier.... [emphasis added] Fawcett and Magam (2001:92)

Since incongruent goals and objectives interrupt the flow of value within the value chain (see previous section) value gaps within the supply chains of some

organisations are certainly present. An empirical framework is currently lacking in the literature to determine where and why those GAPS are occurring. This author now turns to a discussion of his empirical framework of the integrated value process.

9.4 How might a firm improve its management of value?

Research conclusions:

During the case studies this author observed organisations confronting many obstacles as they attempted to translate value between their respective customers and suppliers. One Vice President of Supply Chain Management (F_y^{2+}) highlighted what this author interpreted to be significant interruptions in the flow of value within his firm's value stream. F_y^{2+} observed that his firm lacks a way "of pulling together" all the disparate definitions / views of value held by his firm's stakeholders. In a lengthy but highly relevant portion of the transcript of his interview of F_y^{2+} , the interviewee references the majority of the key research elements contained in this study. These elements are indicated below in italics.

IQ7: What's the major stumbling block [in terms of managing value at Company Y]?

A7: 'There are a million places here where we drill down. "I've got to be the best I've can be at doing this right now." That's OK to a point but you can't do it to the detriment of what other people are trying to get accomplished for the company. [*Second first principle: Balance multiple objectives*] One of the things I always say and try to reinforce to my people is don't get hung up on this concept of "I'm doing what's best for the company". There's not a person in this building who's NOT thinking "I'm doing what's best for the company". You've got an idea and it's not accepted and you say "We're not doing what's best for the company!" Now wait a minute. You're taking this from a functional viewpoint and drilling down and saying "This is the best thing for the company". [*Model: Value gaps*] You've got to take everybody's scenario into consideration and everything that's going to go on as a result of this decision before deciding what's best for the company. [*Third first principle: Adopt a systems view*] Nobody comes in here and says "I'm going to do what's NOT best for the company". Everybody's got the same idea. But it's the collaboration. It's the pulling together, figuring out how the whole thing works, [*Third first principle: Adopt a systems view*] that's what best for the company. God we have a hard time with this! It's not who we've been'.

IQ8: Are there too many metrics?

A8: 'They don't line up. [*First first principle: Align purchasing strategy with business strategy / Model: Value gaps*] You've got conflicting goals. [*Model: Value configuration*] We've got a set of goals for one business unit that are in conflict with the goals of another. [*Research Question Three: Value incongruence*] Inside a business unit, you have sales goals that don't necessarily line up with the manufacturing goals. [*Research Question Two: Value misalignment*] This seems really silly to me. It seems really simple. And yet we struggle with it over and over. There's so much friction between different parts of the company.' [*Model: Value gaps*]

IQ9: Has the firm lost track of its value proposition? You were a leader because you developed new products so you were an innovator. People's metrics were tied to innovation of developing new things. As it has become commoditized, what's your value proposition?
 A9: 'I think there's something to that. We've spent some time on this over the past couple of years. One of G_y's counterparts had a responsibility for product marketing and sales. He was struggling with that, with defining that value proposition. [*Model: Value conceptualisation*] That's an interesting observation. We haven't transitioned into this whole thought process. Maybe that's part of the struggle. We used to be special and now we're a commodity'.

IQ10: Is Company Y's value proposition outlined on paper? Has it ever been?

A10: 'No. I don't think so. We've tried to verbalise it'.

IQ11: How about in your annual reports?

A11: 'Not that finite focused. Interesting isn't it? We're still struggling with it. We're looking for who and what we want to be going forward to our customers. [*Model: Value conceptualisation*] Where do we want to fall along the spectrum? Do we want to continue to be innovators? Do we want to be the customer service leader? Do we want to be the low cost producer? [*Research Question One; Value disciplines*] Where do we want to compete. I mean you can't be everything; you have to pick a spot. How do we want to face the market [*Value as an adjective/Model: Value conceptualisation*] and how do we want to build our systems in support of that? [*Value as a verb/Model: Value configuration*] I think we're having a real hard time because we're still thinking we can be all those things. We can continue to be innovators, we can be the low cost producer, we can become customer service leaders. [*Research Question One: Value disciplines*] If you look at the big successful companies now, they find an icon and that's what they run behind. That's what everything is driven by. [*Fourth first principle: Ensure that value flows across the system*] That's their identification in the marketplace. We're struggling with that. We see it in something as simple as our product offering. [*Model: Value conceptualisation*] We've always had this idea that every product is there when the customer needs it that day, or that we're in a position to run it so that they can have it the next day. It's not even what the customer expects. We went out [and did some research] to support developing an inventory support and production planning system. The customer said "if you have these eleven products all the time, we'll be happy. Give us an idea what you can do for the other products and do it consistently" We got pushback! You would think people [at Company Y] would say "Hallelujah! Let's figure this out." The pushback was "No, no. Our customers don't want that". [*Model: Value gaps*] They told us: "We can't do that because of this, that and some other thing. We know best how to schedule our plants. [*Model: Value implementation*] Our culture won't support it." Wait a minute. This is not a bad thing. This is a good thing. I go back to my very first statement. Change here [at Company Y] is very incremental. It's a culture that is very change resistant'. [*Value as a verb: double loop/second order change*]

IQ12: Can you comment on the consistency of the conceptualization of value at the different internal levels of the company – the executive level, the middle management level, and the front-line level?

A12: 'I think there's a lot of confusion. [*Value gaps*] I think you get mixed messages and lately you get changed messages. In a lot of instances middle management doesn't feel that executive management understands what's going on. [*Research Question Three: Value incongruence*] I think they think they may be a little bit too far removed from the marketplace, from the plants, to really understand what's going on. We've had of late certain individuals trying to make an effort to make more interaction between the executive level and the middle management level to get out to see customers and to see the plants. We tend to be very insular. I only realised that since I had this job [over the past 18 months]. The amount of time that is focused on meeting and bullshit make it impossible to get out and put your hands on what's really happening. I'm a big believer of that. If you have to rely on other people to tell you what's going on, everything you hear is filtered and you don't [really] know. You've got to see it, touch it, hear it, and be there otherwise it's coming through a filter and its value is – I don't want to say questionable – it has less value than if you are doing it yourself. There's an information problem. It's not that we don't talk to them. It's

always a question of ‘What’s your filter?’ [*Value interpretation*] The field people in sales [*Model: Value conceptualisation*] are much more suspicious and adversarial about Headquarters [*Model: Value configuration*] than the plant people [*Model: Value implementation*]. The sales people are much more aggressively distrustful of Headquarters than the plants are distrustful of Headquarters. I think they think Headquarters is totally disconnected from the realities of the market. ... If you look at us on an individual functional basis, we do good things. [*Value as a noun*] We are a terrific manufacturing company – we truly are. We’ve been recognized in the business press as one of the world’s leading manufacturing companies. Now you have to tie them together as a company. And that’s where we fall down. [*Third value principle: Adopt a systems view*] Ultimately that’s what’s going to cause us to be less successful than we could be. We just don’t have the ability to tie it together in one nice package and show that to the customer [*Value as an adjective*] and give the customer the opportunity to take advantage of all that. [*Fourth first principle: Ensure that value flows across the system*] There are linkages missing. [*Model: Value gaps*]

This author notes a correspondence between F_y^{2+} ’s observations and Ellram (2002)’s recent assertion that firms need to simultaneously manage costs (i.e., value as a noun) and the customer value proposition (i.e., value as an adjective). Interestingly Ellram (2002) points out the need for a “translation mechanism” bridging the definitions of value from the customer’s perspective/the firm’s sell-side (i.e. value as an adjective) and from the supplier’s perspective/the firm’s buy-side (i.e. value as a noun). She notes that such a seamless translation mechanism is lacking in the five company triads she studied.

Strategic cost management theory embodies understanding and managing the organization’s supply chain, the cost drivers and the customer value proposition. It is a matter of simultaneously understanding and managing these elements in relation to each other. ... It is not clear from the study how well these organizations understand the customers’ value propositions and translate that across internal functions and to their suppliers. ... The translation mechanism is indirect, through one or more functions that may have direct customer contact. This represents an opportunity for potential improvement.

Related to this, as mentioned in the section on supply chain perspective, most of the organisations studied do not generally have a seamless view of the supply chain from customer to supplier; the customer view and the supplier view are still managed separately in different organizations, with some interface in the middle. Such coordination would be a complex undertaking” Ellram (2002:19-20)

This author asserts that the Conceptual Value Gaps Model¹⁰ explains the translation mechanism process that Ellram (2002) finds lacking. As such, it serves as the core of a useful and welcome framework for PSM professionals, and represents a major contribution to the supply management academic theory.

¹⁰ See Section 7.3.

Reflections:

This author agrees with Ellram (2002:20) that achieving “a seamless view of the supply chain from customer to supplier ... [is] a complex undertaking”. Value is key to any such undertaking as value is the lynchpin of the supply chain, value chain, value stream, etc. Yet value remains an elusive and poorly understood concept. Perhaps this is not surprising. Over a century ago Jevons noted “Value is the most invincible and impalpable of ghosts, and comes and goes unthought of while the visible and dense matter remains as it was”¹¹. This author contends that Jevons’s comments unfortunately portray the state of value theory in the supply management literature today!

Recall that “value” is a key determinant of purchasing and supply management (PSM)’s strategic role in organisations¹². The term value is increasingly used by multiple authors in the literature as a qualifier of the supply management activity, function or process. This author noted that value management as a subject area in most of the PSM literature can be characterised as, at best, suffering from a jumble of value definitions; or at worst, as liberally using an undefined ‘buzz phrase’.

The author previously asserted that much of the confusion about value arises due to incomplete definitions of value¹³. Incomplete definitions result when one’s understanding of value does not accommodate value’s usage as an adjective, noun *and* verb. Much like trying to converse in English with a non-English speaker or speaking to an infant with a restricted understanding of grammatical rules, incomplete definitions of value often produce misunderstanding, confusion and undesirable outcomes. Fawcett and Magam (2001:66) interestingly used the metaphor of language to describe the results of trying to operate without what Ellram (2002:19-20) calls an effective “translation mechanism”:

The unfortunate outcome is that the overall system—the firm or supply chain—is sub-optimized. A figurative tug of war breaks out ... as each group pulls the firm in the direction that it perceives is best. Overall costs are inflated and customer service is diminished even as

¹¹ W. Stanley Jevons (1835–1882). *Investigations in Currency and Finance*, pt. 2, ch. 4 (1884). See Section 5.1 where this author reviews in considerable detail economic theories of value.

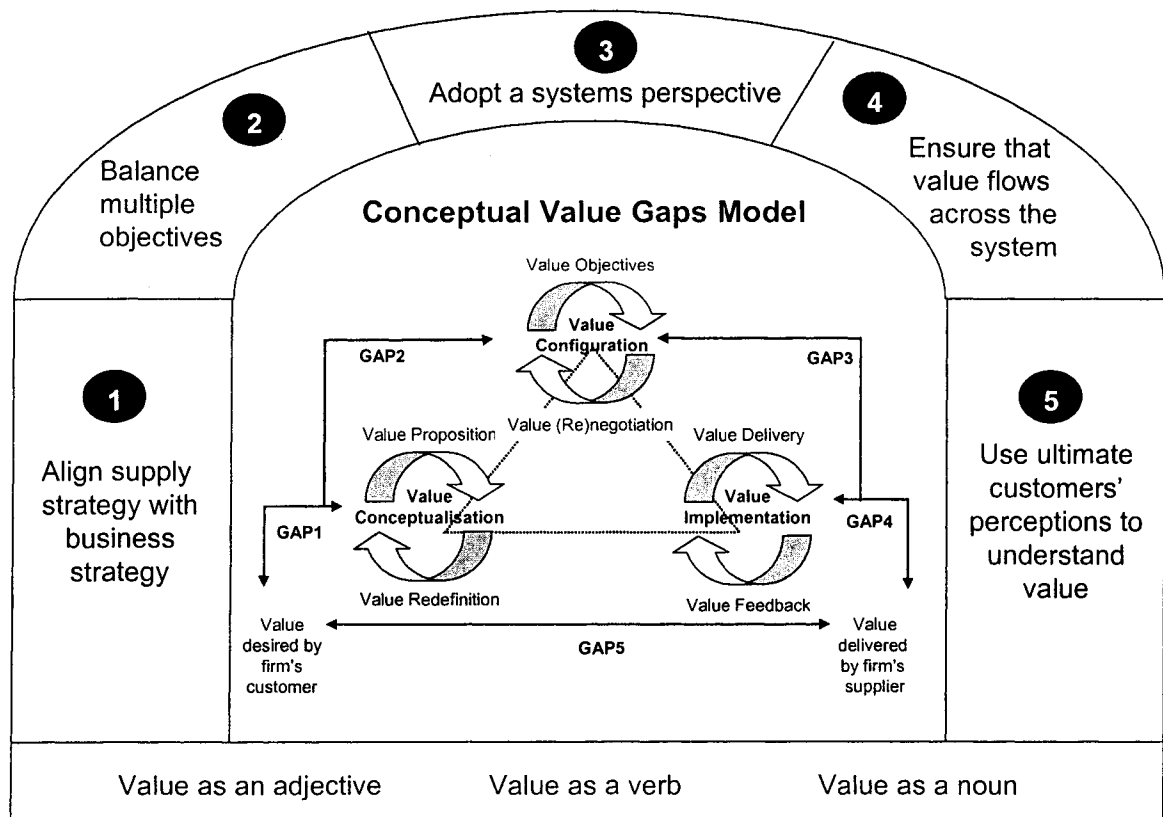
¹² See Section 1.3.

¹³ See Section 1.5.

each operating unit strives diligently to excel. When problems arise, someone else in the organization is always to blame for making unrealistic promises or imposing undue constraints. The mindset is often so pervasive that *managers from different areas of the company not only fail to recognize the value added in other areas but they often seem to speak entirely different languages*. [emphasis added] Fawcett and Magam (2001:66)

This thesis's definition of value serves as the foundation stone upon which this author builds an overarching framework consisting of five value first principles¹⁴ informing the conceptual value gaps model¹⁵. The conceptual value gaps model, empirically tested both quantitatively and qualitatively, measures the effectiveness of a company's "translation mechanism" Ellram (2002:19-20), i.e. the degree of "value alignment" a company achieves across its value stream¹⁶. The integrated value framework (Figure 9A), grounded in the literature as reflected by the five value first principles and made operational with the conceptual value gaps model, provides a

Figure 9A
Integrated Value Process Framework



¹⁴ 'Align purchasing strategy with corporate strategy' (see Chapter Two), 'Balance multiple objectives' (Chapter Three), 'Adopt a systems perspective' (Chapter Four), 'Ensure that value flows across the system' (Chapter Five), and 'Use ultimate customers' perceptions to understand value' (Chapter Six).

¹⁵ See Section 7.3.

powerful tool for PSM professionals to begin what Ellram (2002:19-20) calls the “complex undertaking” of managing a company using “a seamless view of the supply chain from customer to supplier”.

Whilst conducting case study interviews this author used the above framework to guide the questions he posed to case study participants in exploring potential root causes of value gaps they perceived in their respective customer-firm-supplier triads. In response to participant feedback¹⁷, this author shared the framework with US case study firms. Although it is too early to report on actual company experiences using the framework, this author is encouraged by case companies’ initial enthusiasm and receptivity to the framework.

9.5 Closing reflections and discussions of potential future research

This author closes with comments drawn from a lecture delivered by Coase in 1981; the author admires Coase’s ability to explain complicated ideas clearly and succinctly. Coase (1981) (published in Coase (1994)) describes how economists decide what questions to pose and which theories to accept. Coase (1994:16) pointedly disagrees with Milton Friedman who, in “The Methodology of Positive Economics,” asserts that the worth of a theory ‘is to be judged by the precision, scope, and conformity with experience of the predictions it yields The ultimate goals of a positive science is the development of a “theory” or “hypothesis” that yields valid and meaningful ... predictions about phenomena not yet observed.’ (Milton Friedman, “The Methodology of Positive Economics” in *Essays in Positive Economics* (Chicago: University of Chicago Press, 1953), 3-4, 7). Coase (1994:16) counters:

The view that the worth of a theory is to be judged solely by the extent and accuracy of its predictions seems to me wrong. Of course, any theory has implications. It tells us that if something happens, something else will follow, and it is true that most of us would not value the theory if we did not think these implications corresponded to happenings in the real economic system. But a theory is not like an airline or bus timetable. We are not interested simply in the accuracy of its predictions. A theory also serves as a base for thinking. It helps us to understand what is going on by enabling us to organize our thoughts. Faced with a

¹⁶ Value alignment is discussed in Section 5.2.

¹⁷ Four US participants commented on this author’s ability to pinpoint quickly value gaps in their respective organisations.

choice between a theory which predicts well but gives us little insight into how the system works and one which gives us insight but predicts badly, I would choose the latter, and I am inclined to think that most economists would do the same. Coase (1981) in Coase (1994:16-17)

This author spares the reader such a choice, since he builds a theory of value from first principles taken from the literature (Chapters Two through Six) and then confirms the theory using a conceptual model that he tests both quantitatively and qualitatively (Seven and Eight). Similar to Coase's comments above, the author asserts that this thesis's "worth" lies in its ability 'to serve as a base for thinking, [helping] us to understanding what is going on by enabling us to organize our thoughts'¹⁸. As such, the author contends it is a very important contribution to the broad academic literature and to PSM practice.

In the introductory chapter this author noted the increasing use of the term value in the academic and professional literature. He also noted that the term value has grown increasingly meaningless. Business exhortations to "maximise value", "increase value-added", and to be "value-based"/"value-driven" are unfortunately as meaningful and actionable as personal wishes to "be happy", "be healthy", and "live long and prosper". They are relative, situation-dependent, and blend objective / quantitative and subjective / qualitative considerations.

By developing a conceptual model derived from the literature, grounded in the five value first principles, and based on a formal definition of value, this author advances a robust framework to identify theoretical areas of (dis)agreement between competing schools of thought about value within and across academic disciplines. The framework is robust in that it is historically informed and rigorously structured so it provides a firm "basis for thinking" Coase (1981) about value. The framework is practical in that it has been empirically tested -- and is currently being field tested by

¹⁸ See Section 9.4 where this author discusses how his Integrated Value Process Framework describes the flow of value across a company's value stream.

three case study companies -- so it provides a firm “basis for managing”¹⁹ value as well.

The framework also provides the basis for important future research. Recall that Hofstede (1980)/ Hofstede (1997) and Fukuyama (1995) posit cultural differences that effect individual and collective value assessments²⁰. According to these writers value (as a noun, verb and adjective) is a culturally relative concept. This has major implications for companies operating in an increasingly global economy where value chain triads (customer-firm-supplier) span nations and cultures.

The author intends to contribute to the body of management thinking in this area. This author will examine cultural differences using the conceptual value gaps model, five value first principles and definition of value presented in this thesis. Starting with this thesis’s existing empirical base he will explore UK and US differences²¹ between participants. He hopes to expand the empirical base to include Australian participants so that he can measure Anglo-American-Australian differences²². These findings will be highly relevant to exploring whether lean principles (which are based on the concept of value) are culturally determinant or universally applicable²³.

In today’s global economy organisations need perhaps now more than ever to understand value in order to build and operate efficient and effective transnational value streams. Value’s proper definition, measurement and management have become central management concerns. This thesis’s integrated value process framework (Figure 9A) provides a practical yet theoretically derived framework – Coase’s “basis for managing” – so that managers may address these concerns. The integrated value process framework also provides academics with an empirical

¹⁹ Extending Coase (1981)’s phrase. The reader is directed to Appendix D which contains a conference paper this author delivered on 15 April 2003 at the 12th International Purchasing and Supply Education and Research Association (IPSERA) conference in Budapest. The paper may be used by the reader to gain clarification on points regarding the implementation of the framework (thereby complementing the text of this section).

²⁰ See Section 6.2.

²¹ In Section 1.5 this author noted in Footnote 17 that the reader might expect an Englishman and an American to conceptualise value very differently. This was supported by a case interviewee who observed confusion generated by ‘interpretations of different peoples’ languages [such as] American versus English’. See Table 8T.

²² This author has discussed with his Ph.D. research supervisor, Dr. Paul Cousins, formerly of the University of Bath and presently of the University of Melbourne, expanding the scope of this thesis’s research to include Australian firms.

²³ See Footnote 22 in Section 6.2.

construct – Coase’s “basis for thinking” – to test and determine the relevance of lean thinking (or any academic literature) to these key management concerns. By providing such a basis Coase would undoubtedly consider this thesis’s empirical framework a substantive and worthwhile contribution to business knowledge.

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See also Table 5A for a bibliography of economic theories of value.

APPENDIX A:
SURVEY QUESTIONNAIRE



Dear Sir/Madam,

We invite you to participate in a survey being conducted under the auspices of the School of Management at the University of Bath in the United Kingdom (www.bath.ac.uk). As a purchasing and supply management (PSM) executive, you have been identified as a highly relevant contact for this research effort.

The purpose of the research is to examine how British and North American companies conceptualize and manage the value of purchasing and supply management (PSM). While value management is recognized as an important concept by the business world, by the financial press, and by management educators, its linkage to supply management remains poorly defined and measured. To help clarify this area, we are examining how companies integrate PSM into their overall value management process. We are particularly interested in understanding how perceptions of PSM's value differ between constituencies within companies.

We therefore enclose three surveys. The beige survey is to be completed by a professional buyer within your organization; the blue survey, by your organization's head of PSM; and the green survey, by the Director/President of your company/business unit or by your Director/Vice President of Business Strategy. We would appreciate your forwarding the surveys to those individuals. The three surveys should be completed individually and returned separately in the enclosed envelopes.

Responses will remain strictly confidential (never attributed to any individual or organization), will never be disclosed to anyone else within an organization (including your fellow respondents), and will only be reported in the aggregate.

In responding to the questionnaire, you will be part of a trans-Atlantic research project involving several hundred companies from the UK, US and Canada. Your participation will result in a summarized comparison of international 'best practices' that will be made available to all participants. Please include your email address on the survey so that we can provide you with a URL link to the final report.

We welcome chatting with you should you have any questions or concerns about this effort. Our contact details are included in the survey. Thank you in advance for your participation.

Best regards,

Dr. Paul D. Cousins
Lecturer in Operations and Supply Management
Research Supervisor

Andrew J. Swan
Ph.D. Candidate

UNIVERSITY OF BATH SCHOOL OF MANAGEMENT



THE VALUE OF PURCHASING AND SUPPLY MANAGEMENT

An Anglo-North American Examination

November 2000

Reference Number:

THE VALUE OF PURCHASING AND SUPPLY MANAGEMENT

AN ANGLO-NORTH AMERICAN EXAMINATION

- This research will identify how British and North American companies conceptualize, articulate and manage the value of purchasing and supply management. Your responses will help grow the body of academic knowledge about PSM, and will increase your understanding of international 'best practices'.
- The term "PSM" is used throughout this survey. It is an abbreviation of 'Purchasing and Supply Management' and includes the following areas: supplier identification, certification and development; strategic sourcing; indirect and direct materials approval and acquisition.
- The term "organization" is also used throughout this survey. Please interpret this term as company, division, or business unit – whatever describes the group of individuals whose perspective you may be asked to assume. For example, if you are a divisionalized or decentralized company, you may substitute "division", "business unit", or "geographical subsidiary" for "organization". If you are a centralized company, you may wish to substitute "firm" or "company" for "organization".
- The beige survey is to be completed by a professional buyer within your organization; the blue survey, by the head of PSM of your organization; and the green survey, by the Director/President of your company/business unit or by your Director/Vice President of Business Strategy. We would appreciate your forwarding the surveys to those individuals. The three surveys should be completed individually and returned separately in the enclosed envelopes.
- Please complete the **entire** survey, answering **all** questions. If you are not completely sure of how to answer a question, please provide your **best estimate**.
- We would be most appreciative if you would kindly complete the survey within the next 14 days (two weeks).
- If you have any questions about this research effort, do not hesitate to contact Dr. Paul Cousins (UK) or Andrew Swan (US/Canada).
- Thank you in advance for your participation on this international research effort.

Please return this survey in the enclosed envelopes addressed to:

For UK participating companies:

Dr. Paul D. Cousins, Research Supervisor
University of Bath, School of Management
Centre for Research in Strategic Purchasing and Supply
Bath, Avon BA2 7AY UK

Tel: [44] (01225) 826.909
Email: P.D.Cousins@bath.ac.uk

For North American participating companies:

Andrew J. Swan, Ph.D. Candidate
3154 North Hudson Avenue
Chicago, IL 60657 USA

Tel: [1] (773) 868.9845
Email: ajs119@columbia.edu

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PLEASE COMPLETE SECTION 1 IN ITS ENTIRETY BEFORE COMPLETING ANY OTHER SECTIONS

Section 1: Value objectives

1 In your opinion, how does your organization "add value" for its customers?

2 In your opinion, what relative importance does your organization place on the following management objectives?

(Please allocate 100 points between the three statements to indicate their relative importance)

- a. Achieving the highest levels of internal efficiency to reduce the costs of operations and the price of the products/services we supply.....
- b. Promoting innovation and creativity within the company to develop breakthrough products/services.....
- c. Developing and maintaining strong relationships with customers to understand their requirements and achieve preferred status as a supplier

Points	
a	
b	
c	

100 points

3 In your opinion, please rate your company's performance in the following areas:

(Check one box for each statement)

- a. Understanding what your customers value.....
- b. Communicating its objectives to all members of the company and to suppliers.....
- c. Ensuring that everyone internally and externally works together to achieve those objectives.....

Poor	Fair	Good	Very good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5

4 Please approximate your company's total number of customers:

(Please write the figure in the box below; check the "Don't know" box if unknown)

2 ☐ Don't know

5 Estimate the percentage of your total sales that is generated by your key customers, i.e. the largest 20% of your customers.

(Check one box)

1% - 10%	11% - 20%	21% - 30%	31% - 40%	41% - 50%	51% - 60%	61% - 70%	71% - 80%	81% - 90%	91% - 100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7	8	9	10

6 In your opinion, what do your key customers (the largest 20%) value from you as a supplier?

(Please allocate 100 points amongst the seven statements to indicate their relative importance to your key customers)

- a. Providing them with excellent customer responsiveness to meet or exceed their needs/requirements.....
- b. Providing them with consistent, timely supply of goods and services.....
- c. Offering them high quality goods and services.....
- d. Executing the most efficient operating processes when they conduct business with you
- e. Providing goods and services at a lower price than your competitors.....
- f. Being able to impact their overall profitability
- g. Offering them highly innovative products and services.....

Points	
a	
b	
c	
d	
e	
f	
g	

100 points

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- 7 In your opinion, what do your remaining customers (the smallest 80%) value from you as a supplier?
(Please allocate 100 points amongst the seven statements to indicate their relative importance to your remaining customers)

	Points
a. Providing them with excellent customer responsiveness to meet or exceed their needs/requirements.....	a
b. Providing them with consistent, timely supply of goods and services.....	b
c. Offering them high quality goods and services.....	c
d. Executing the most efficient operating processes when they conduct business with you	d
e. Providing goods and services at a lower price than your competitors.....	e
f. Being able to impact their overall profitability	f
g. Offering them highly innovative products and services.....	g
	100 points

- 8 Please approximate your company's total number of suppliers:
(Please write the figure in the box below; check the "Don't know" box if unknown)

2 ☐ Don't know

- 9 What percentage of the total goods and services your company purchases is through your key suppliers (the largest 20%)?
(Check one box)

1% - 10%	11% - 20%	21% - 30%	31% - 40%	41% - 50%	51% - 60%	61% - 70%	71% - 80%	81% - 90%	91% - 100%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7	8	9	10

- 10 In your opinion, what does your organization value from your key suppliers (the largest 20%)?
(Please allocate 100 points amongst the seven statements to indicate their relative importance to your organization)

	Points
a. Providing you with excellent customer responsiveness to meet or exceed your needs/requirements.....	a
b. Providing you with consistent, timely supply of goods and services.....	b
c. Offering you high quality goods and services.....	c
d. Executing the most efficient operating processes when you conduct business with them	d
e. Providing you with goods and services at a lower price than their competitors.....	e
f. Being able to impact your overall profitability	f
g. Offering you highly innovative products and services.....	g
	100 points

- 11 In your opinion, what does your organization value from your remaining suppliers (the smallest 20%)?
(Please allocate 100 points amongst the seven statements to indicate their relative importance to your organization)

	Points
a. Providing you with excellent customer responsiveness to meet or exceed your needs/requirements.....	a
b. Providing you with consistent, timely supply of goods and services.....	b
c. Offering you high quality goods and services.....	c
d. Executing the most efficient operating processes when you conduct business with them	d
e. Providing you with goods and services at a lower price than their competitors.....	e
f. Being able to impact your overall profitability	f
g. Offering you highly innovative products and services.....	g
	100 points

- 12 Does your company have an explicit Mission Statement?
Yes ☐ (Continue on next page) No ☐ (Skip next page and go to 14)

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13 *Please attach your company's Mission Statement to this survey, or write it below:*

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Section 2: Value linkages

- 14 Please indicate your agreement with the following statements:
(Check one box for each statement)

There is a cause and effect relationship between my company's		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1	• ... <u>business</u> strategy and its <u>purchasing and supply management</u> strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	• ... <u>business</u> strategy and its <u>sales and marketing</u> strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	• ... <u>purchasing and supply management</u> strategy and its <u>business</u> strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	• ... <u>sales and marketing</u> strategy and its <u>business</u> strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4	5

- 15 Does your company use a Balanced Scorecard approach to manage and measure its overall performance?
(A Balanced Scorecard is a weighted consideration of a range of objective & subjective measures)
(Check one box)

- 1 • Yes..... ☐ Continue to 16
2 • No..... ☐ Go to 17
3 • Don't know..... ☐ Go to 17

- 16 Does your company's Balanced Scorecard include purchasing and supply management (PSM) measures?
(Check one box)

- 1 • Yes..... ☐
2 • No..... ☐
3 • Don't know..... ☐

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Section 3: Value perceptions

17 In relation to other functions within your company, please rate the PSM function in terms of the following issues:

(Check one box per issue)

	Significantly lower	Lower	Same	Higher	Significantly higher
a • Reporting level within the company.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b • Relative contribution to shareholder value.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c • Relative contribution to competitive advantage.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d • Relative contribution to customer value.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5

18 In your opinion, how often are the following statements true?

(Please check one box for each statement)

	Never	Rarely	Sometimes	Often	Always
a • PSM is viewed as an important job rotation for those identified for future top management in your company.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b • Top management in your company views PSM as equally important to other functions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c • Other functional areas in your company view PSM as equally important to their own function.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5

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Section 4 Organizational profile

- 19 Please approximate the total annual sales (turnover/revenues) for your organization:
(Please write the figure in the box below, indicating whether you are referencing UK £ or US \$)

- 20 Please approximate the total annual purchases of your company:
(Please write the figure in the box below, indicating whether you are referencing UK £ or US \$)

- 21 Please approximate the percentage mix of your purchases (indicated in Q22) that are
(a) Strategic (items critical to your company's competitive position), and
(b) Non-Strategic (support items not core to your company's competitive position)
(Please write one figure in each box, with the sum being 100)

Strategic		Non-Strategic		
(a) <input type="text"/>	%	+	(b) <input type="text"/>	% = 100 %
1			2	

- 22 Does your company have a Director of PSM that sits on its Board of Directors?

Yes ☐ No ☐

1 2

- 23 To whom does the head of PSM report in your company?
(Check one box)

Classification system A (UK commonly)		Classification system B (US commonly)	
1 • Managing Director.....	<input type="checkbox"/>	• CEO/President	<input type="checkbox"/> 7
2 • Finance Director.....	<input type="checkbox"/>	• COO	<input type="checkbox"/> 8
3 • Production Director....	<input type="checkbox"/>	• CFO/Vice President of Finance	<input type="checkbox"/> 9
4 • Marketing Director....	<input type="checkbox"/>	• Vice President of Sales & Marketing	<input type="checkbox"/> 10
5 • Commercial Director...	<input type="checkbox"/>	• Vice President of Production/Manufacturing	<input type="checkbox"/> 11
6 • Other _____	<input type="checkbox"/>	• Other _____	<input type="checkbox"/> 12

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24 Please approximate the number of employees in your company according to the following break-downs:

(Please enter one figure in each box)

- All employees in the company

Managers and supervisors

Your business unit

Your company

- Purchasing and supply management (PSM) employees

Professional buyers

Your business unit

Your company

PSM support and administration

Your business unit

Your company

	1
	2
	3
	4
	5
	6
	7

25 Please indicate the major products and services produced or provided by your company:

(Check all that apply)

- | | |
|---|---|
| • Agribusiness <input type="checkbox"/> 1 | • Hospitality <input type="checkbox"/> 17 |
| • Aerospace and defense <input type="checkbox"/> 2 | • Industrial goods <input type="checkbox"/> 18 |
| • Apparel and fashion <input type="checkbox"/> 3 | • Media <input type="checkbox"/> 19 |
| • Automotive and assembly <input type="checkbox"/> 4 | • Medical equipment <input type="checkbox"/> 20 |
| • Chemicals <input type="checkbox"/> 5 | • Metals <input type="checkbox"/> 21 |
| • Consumer goods, electronics <input type="checkbox"/> 6 | • Petroleum <input type="checkbox"/> 22 |
| • Consumer goods, food and nutrition <input type="checkbox"/> 7 | • Pharmaceuticals <input type="checkbox"/> 23 |
| • Consumer goods, durables <input type="checkbox"/> 8 | • Professional services <input type="checkbox"/> 24 |
| • Consumer goods, non-durables <input type="checkbox"/> 9 | • Pulp and paper <input type="checkbox"/> 25 |
| • Education <input type="checkbox"/> 10 | • Retail <input type="checkbox"/> 26 |
| • Electric power and natural gas <input type="checkbox"/> 11 | • Semiconductors <input type="checkbox"/> 27 |
| • Electronics <input type="checkbox"/> 12 | • Steel <input type="checkbox"/> 28 |
| • Entertainment and leisure <input type="checkbox"/> 13 | • Telecommunications <input type="checkbox"/> 29 |
| • Financial services <input type="checkbox"/> 14 | • Transportation <input type="checkbox"/> 30 |
| • Government services <input type="checkbox"/> 15 | • Other (Please indicate below) <input type="checkbox"/> 31 |
| • Health care <input type="checkbox"/> 16 | |

26 If you would you like see our research findings, please provide your email address so that we may send you the URL link to the summarized final report.

Email:

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- 26 *Would you like to receive a more thorough analysis tailored to your company? (Companies receive a report customized to their industry/size peer group. In return, companies agree to serve as anonymous case studies for the researcher's PhD.)*
- No ☐ Yes ☐ Please attach your business card.

Thank you for taking the time to complete this survey. A summary of the findings will be mailed to you.

IN CLOSING ... Have you answered all questions? Have you remembered to attach your company's Mission Statement (Q13)?

APPENDIX B:
GUIDE TO NOMENCLATURE

Guide to nomenclature

To identify individual interviewees, this author employs the following shorthand.

Interviewee_{Company} Level

An interviewee is designated by the upper case letters A, B, C etc. A company is designated by lower case letters u through z (with u, v and w designating UK-based organisations; the remainder being US-based). Subscripts identify the interviewee's organisation whilst superscripts map them to one or more value sub-processes (i.e., 1: value conceptualization; 2: value configuration; 3: value implementation) based on their title and responsibilities. A final 'c' or 's' is appended to the subscript to designate a customer or supplier (versus employee) of the focal organisation. A plus sign after the superscript indicates that the interviewee is a member of that organisation's PSM group.

For example, A_{vs}^3 designates a supplier of the UK-based, focal organisation v whose value perspective within his or her own respective (supplier) organisation is that of value implementation. G_{zc}^{12} designates a customer of the US-based organisation z whose value perspectives are both value conceptualization and value configuration within his or her own respective customer organisation – perhaps the CIO. C_u^{2+} likely references to the functional head of the purchasing and supply management (PSM) group – but definitely not the functional head of marketing, production, finance, etc. -- at British company u. Table 8L contains a legend linking labels used in this thesis to position titles of individuals interviewed at case study companies.

APPENDIX C:
CASE STUDY INTERVIEW SUBJECT INDEX

Name	Case	Level	Key words	Q&A	Role
A _w ¹	W	1	Balanced Scorecard	9 ^{Y*}	F
K _x ¹²	X	12	Balanced Scorecard	(4-8) ^{Y*}	F
O _{xc} ¹²	X	12	Balanced Scorecard	(8-9) ^{Y*}	C
Q _x ¹²	X	12	Balanced Scorecard	10, 11	F
A _w ¹	W	1	Balanced Scorecard, supply management contribution as cost savings	9 ^{Y*}	F
B _x ¹	X	1	Balanced Scorecard, supply management contribution as cost savings	8 ^{Y*}	F
K _x ¹²	X	12	Balanced Scorecard, supply management contribution as cost savings	8 ^Y , (13-14) ^{Y*}	F
N _{xc} ²	X	2	Balanced Scorecard, supply management contribution as cost savings	(2-3) ^{Y*} , 5 ^{Y*}	C
O _{xc} ¹²	X	12	Balanced Scorecard, supply management contribution as cost savings	(8-9) ^{N*}	C
B _x ¹	X	1	Balanced Scorecard, supply management contribution confined to low level	9 ^{Y*}	F
A _u ²⁺	U	2+	Delivery as <i>moment of value</i>	4	F
A _u ²⁺	U	2+	Don't measure value <i>per se</i>	2	F
P _x ²⁺	X	2+	Evaluation as an inductive skill	4 ^{Y*}	F
A _{yc} ³	Y	3	Evaluation as an inductive skill	2 ^{Y*}	C
D _z ²⁺	Z	2+	Evaluation as an inductive skill	5 ^{Y*}	F
A _v ¹	V	1	GAP 1	4 ^{N*}	F
B _{vc} ³ , B _v ²⁺	V	23+	GAP 1	(1-2) ^{N*}	CF
J _{ys} ³	Y	3	GAP 1	5 ^{Y*}	S
I _{zc} ²⁺	Z	2+	GAP 1	(5-6) ^{Y*}	C
O _{zc} ¹²³	Z	123	GAP 1	4 ⁻	C
D _x ²⁺	X	2+	GAP 1 [internal]	9 ^{Y*}	F
E _x ³⁺	X	3+	GAP 1 [internal]	(2-3) ^{Y*}	F
O _{xc} ¹²	X	12	GAP 1 [internal]	4 ^{Y*}	C
A _u ²⁺	U	2+	GAP 2	8	F
F _y ²⁺	Y	2+	GAP 2	(9-11) ^{Y*}	F
J _{ys} ³	Y	3	GAP 2	6 ^{Y*} , 7 ^{Y*}	S
A _u ²⁺	U	2+	GAP 3	8	F
F _{xs} ²³	X	23	GAP 3	3 ^{Y*}	S
F _y ²⁺	Y	2+	GAP 3	3 ^{Y*} , 8 ^{Y*}	F
J _{ys} ³	Y	3	GAP 3	6 ^{Y*} , 7 ^{Y*}	S
A _u ²⁺	U	2+	GAP 4	9, 23 ^{Y*}	F
B _u ²⁺	U	2+	GAP 4	(8-10) ^{Y*}	F
D _{us} ²	U	2	GAP 4	(4-5) ^{Y*}	S
F _{us} ³	U	3	GAP 4	7 ^{Y*}	C
A _v ¹	V	1	GAP 4	11 ^{N*} , 21 ^{N*}	F
B _{vc} ³ , B _v ²⁺	V	23+	GAP 4	3 ^{Y*}	CF
A _x ²⁺	X	2+	GAP 4	6 ^{Y*} , 8 ^{Y*}	F
F _{xs} ²³	X	23	GAP 4	1 ^{Y*} , 3 ^{Y*} , 5 ^{Y*} , 6 ^{Y*}	S
G _x ²⁺	X	2+	GAP 4	(9-10) ^{Y*}	F
H _{xs} ³	X	3	GAP 4	1 ^{Y*}	S
I _{xs} ³	X	3	GAP 4	1 ⁻	S
C _y ²⁺	Y	2+	GAP 4	10 ^{N*}	F
I _y ³⁺	Y	3+	GAP 4	7 ⁻	F
J _{ys} ³	Y	3	GAP 4	(2-3) ^{N*} , 8 ^{Y*}	S
E _z ³⁺	Z	3+	GAP 4	4	F
J _{zs} ²	Z	2	GAP 4	5 ^{N*}	S
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	Z	12	GAP 4	3 ^{N*}	S
P _{zs} ¹	Z	1	GAP 4	1 ^Y	S
A _u ²⁺	U	2+	GAP 5	7, 22	F
B _u ²⁺	U	2+	GAP 5	13	F
D _{us} ²	U	2	GAP 5	(6-7) ^{Y*}	S
F _{us} ³	U	3	GAP 5	6 ⁻	C
B _{vc} ³ , B _v ²⁺	V	23+	GAP 5	4 ^{Y*} , 5, 6 ^{Y*} , 7	CF
I _y ³⁺	Y	3+	GAP 5	6 ⁻	F
A _z ³⁺	Z	3+	GAP 5	11 ^{N*}	F
F _z ³⁺	Z	3+	GAP 5	5 ^{N*}	F
G _z ³⁺	Z	3+	GAP 5	4 ^{N*}	F
A _u ²⁺	U	2+	Goals and objectives, alignment	25, 26	F
D _{us} ²	U	2	Goals and objectives, alignment	8	S
A _w ¹	W	1	Goals and objectives, alignment	2 ^Y	F
B _w ²⁺	W	2+	Goals and objectives, alignment	1 ^Y	F
D _z ²⁺	Z	2+	Goals and objectives, alignment	7 ^{N*}	F
G _z ³⁺	Z	3+	Goals and objectives, alignment	2	F

C _u ³⁺	U	3+	Goals and objectives, buyers vs. suppliers	11	F
B _u ²⁺	U	2+	Goals and objectives, cascading	5 ^V	F
A _{xc} ³	Y	3	Goals and objectives, cascading	(4-5) ^{V*}	C
C _z ²⁺	Z	2+	Goals and objectives, cascading	2 ^{V*} , 5 ^{V*}	F
D _z ²⁺	Z	2+	Goals and objectives, cascading	(8-9) ^{V*} , 7 ^{N*}	F
G _z ³⁺	Z	3+	Goals and objectives, cascading	2 ^{V*}	F
C _u ³⁺	U	3+	Goals and objectives, linkages between	5 ^{N*}	F
K _x ¹²	X	12	Goals and objectives, linkages between	(5-6) ^{V*}	F
C _y ²⁺	Y	2+	Goals and objectives, linkages between	4 ^{N*}	F
F _y ²⁺	Y	2+	Goals and objectives, linkages between	5 ^{N*}	F
C _z ²⁺	Z	2+	Goals and objectives, linkages between	5 ^{V*}	F
F _{uc} ³	U	3	Goals and objectives, misalignment	8 ^{V*}	C
A _w ¹	W	1	Goals and objectives, misalignment	1 ^V	F
A _{xc} ³	Y	3	Goals and objectives, misalignment	(3-4) ^{V*}	C
C _y ²⁺	Y	2+	Goals and objectives, misalignment	4 ^{V*}	F
F _y ²⁺	Y	2+	Goals and objectives, misalignment	3 ^{V*} , 8 ^{V*}	F
D _x ²⁺	X	2+	Goals and objectives, <i>What gets measured gets done</i>	6 ^{V*}	F
G _x ²⁺	X	2+	Goals and objectives, <i>What gets measured gets done</i>	(7-8) ^{V*}	F
K _x ¹²	X	12	Goals and objectives, <i>What gets measured gets done</i>	6 ^{V*}	F
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	Z	12	Goals and objectives, <i>What gets measured gets done</i>	2 ^{V*}	S
A _{xc} ³	Y	3	Management as art form	4 ^V	C
D _{us} ²	U	2	Perceptions as function of SC role and SC position	1	S
C _z ²⁺	Z	2+	Perceptions as function of SC role and SC position	9 ^V	F
A _u ²⁺	U	2+	Performance metrics (individual), tactical	3	F
A _u ²⁺	U	2+	Performance metrics (subjective), mistrust of	11	F
P _x ²⁺	X	2+	Performance metrics (subjective), mistrust of	(4-5) ^{V*}	F
B _z ²³	Z	23	Performance metrics (subjective), mistrust of	(5-8) ^{V*}	F
C _z ²⁺	Z	2+	Performance metrics (subjective), mistrust of	12 ^{V*}	F
B _z ²³	Z	23	Performance metrics (subjective), reporting of	8 ^{V*}	F
P _x ²⁺	X	2+	Performance metrics (subjective), use of	(4-5) ^{N*}	F
A _v ¹	V	1	Performance metrics (supplier), subjective	12 ^{N*}	F
N _{xc} ²	X	2	Performance metrics (supplier), subjective	5 ^{N*}	C
D _x ²⁺	X	2+	Principal – agent, assuming <i>what's best for everyone</i>	6 ^{V*}	F
E _x ³⁺	X	3+	Principal – agent, assuming <i>what's best for everyone</i>	4 ^{V*}	F
J _x ³⁺	X	3+	Principal – agent, assuming <i>what's best for everyone</i>	(3-4) ^{V*}	F
O _{xc} ¹²	X	12	Principal – agent, assuming <i>what's best for everyone</i>	6 ^{V*}	C
A _{xc} ³	Y	3	Principal – agent, assuming <i>what's best for everyone</i>	4 ^{V*}	C
F _y ²⁺	Y	2+	Principal – agent, assuming <i>what's best for everyone</i>	7 ^{V*}	F
F _{xs} ²³	X	23	Purchasing as intermediary	2 ^V	S
J _{zs} ²	Z	2	Purchasing as intermediary	4 ^{V*}	S
O _u ¹²	X	12	Purchasing function as strategic	3 ^{V*}	C
P _x ²⁺	X	2+	Purchasing function as strategic	(8-9) ^{V*}	F
C _z ²⁺	Y	2+	Purchasing function as strategic	(12-13) ^{V*}	F
O _{xc} ¹²	X	12	Purchasing function as tactical	3 ^{V*}	C
C _z ²⁺	Y	2+	Purchasing function as tactical	1 ^{V*} , 12 ^{V*}	F
B _x ¹	X	1	Purchasing function as walking <i>fine line</i>	11 ^{V*}	F
B _x ¹	X	1	Purchasing function, expectations of	11 ^{V*}	F
A _x ²⁺	X	2+	Purchasing function, perceptions of	3, 5, 6	F
B _x ¹	X	1	Purchasing function, perceptions of	1, 11	F
C _{xs} ³	X	3	Purchasing function, perceptions of	3, 4	S
O _{xc} ¹²	X	12	Purchasing function, perceptions of	2	C
Q _x ¹²	X	12	Purchasing function, perceptions of	11	F
C _y ²⁺	Y	2+	Purchasing function, perceptions of	2, 12, 13	F
K _x ¹²	X	12	Purchasing function, perceptions of as <i>necessary evil</i>	2	F
P _x ²⁺	X	2+	Risk reduction, importance of with indirects	(1-2) ^{V*}	F
P _x ²⁺	X	2+	Risk reduction, subjectively measured	(3-5) ^{V*}	F
A _w ¹	W	1	Stakeholder management	1 ^V	F
B _x ¹	X	1	Supplied goods classification (Kraljic)	2 ^V , 4 ^V , 5	F
F _{xs} ²³	X	23	Supplier as intermediary	2 ^V	S
J _{zs} ²	Z	2	Supplier as intermediary	4 ^{V*}	S
B _u ²⁺	U	2+	Supplier contract negotiations and relationship management, split between roles	2 ^{V*}	F
F _{uc} ³	U	3	Supplier contract negotiations and relationship management, split between roles	3 ^{V*}	C
B _w ²⁺	W	2+	Supplier contract negotiations and relationship management, split between roles	2 ^{V*}	F
C _{xs} ³	X	3	Supplier contract negotiations and relationship management, split between roles	7 ^{V*}	S
G _x ²⁺	X	2+	Supplier contract negotiations and relationship management, split between roles	5, 6, 11	F
N _{xc} ²	X	2	Supplier contract negotiations and relationship management, split between roles	4 ^{V*}	C

			split between roles		
A _z ³⁺	Z	3+	Supplier relationships, <i>on the same wavelength</i>	8 ^{V*}	F
B _u ²⁺	U	2+	Supplier relationships, value of	14 ^Y	F
C _u ³⁺	U	3+	Supplier relationships, value of	1 ^{V*}	F
F _y ²⁺	Y	2+	System view	1 ^{N*} , 3 ^{N*} , 5 ^{N*} , 6 ^{N*}	F
A _z ³⁺	Z	3+	Total Acquisition Cost (TAC)	2 ^V	F
B _z ²³	Z	23	Total Acquisition Cost (TAC)	(5-6) ^{N*}	F
C _z ²⁺	Z	2+	Total Acquisition Cost (TAC)	5	F
Q _x ¹²	X	12	Total Cost of Ownership (TCO)	(1-3) ^V	F
F _y ²⁺	Y	2+	Total Cost of Ownership (TCO)	(4-5) ^{N*}	F
Q _x ¹²	X	12	Trade-offs	10	F
A _x ³	Y	3	Trade-offs	2 ^V	C
G _x ²⁺	X	2+	Value as a verb	1 ^{V*} , 2 ^{V*}	F
O _{xc} ¹²	X	12	Value as a verb	6 ^V	C
A _x ³	Y	3	Value as a verb	5 ^{V*}	C
I _y ³⁺	Y	3+	Value as an interpretative process	1 ^V	F
A _z ³⁺	Z	3+	Value as <i>authentic value</i>	2 ^V	F
C _z ²⁺	Z	2+	Value as <i>authentic value</i>	3, 4	F
I _{xc} ²⁺	Z	2+	Value as <i>authentic value</i>	3 ^{N*}	C
J _{zs} ²	Z	2	Value as <i>authentic value</i>	6 ^{N*}	S
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	Z	12	Value as <i>authentic value</i>	7 ^{N*}	S
N _{zk} ¹²	Z	12	Value as <i>authentic value</i>	5 ^{N*}	C
O _{zc} ¹²³	Z	123	Value as <i>authentic value</i>	2 ^{N*} , 2 ^V	C
G _x ²⁺	X	2+	Value as <i>core values</i>	3 ^{V*}	F
F _y ²⁺	Y	2+	Value as <i>core values</i>	13	F
G _y ¹	Y	1	Value as <i>core values</i>	6 ^{V*}	F
B _x ¹	X	1	Value as cost savings	1 ^V	F
P _z ²⁺	X	2+	Value as cost savings	6 ^{V*}	F
I _y ³⁺	Y	3+	Value as cost savings	3 ^{N*}	F
A _z ³⁺	Z	3+	Value as cost savings	3 ^{V*}	F
B _z ²³	Z	23	Value as cost savings	(5-6) ^{V*}	F
O _{xc} ¹²	X	12	Value as direct and indirect	1 ^{V*}	C
A _v ¹	V	1	Value as multi-facetted	1	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value as multi-facetted	1 ^V	FS
O _{xc} ¹²	X	12	Value as multi-facetted	1 ^{V*}	C
G _z ³⁺	Z	3+	Value as multi-facetted	1 ^{V*}	F
C _{xs} ³	X	3	Value as perception-based concept	1 ^V , 8 ^V	S
C _z ²⁺	Z	2+	Value as product of weighted definitions	5 ^V , 7 ^V , 10 ^V	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value as profit	3	FS
A _v ¹	V	1	Value as PTC (performance, time, cost)	1, 2	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value as <i>real value</i>	3	FS
A _u ²⁺	U	2+	Value as relationship management	1	F
A _x ²⁺	X	2+	Value as subjective	4 ^{V*}	F
A _u ²⁺	U	2+	Value as sum of characteristics	2	F
A _v ¹	V	1	Value as sum of characteristics	1, 2	F
D _x ²⁺	X	2+	Value as sum of characteristics	1 ^V	F
I _{zc} ²⁺	Z	2+	Value as sum of characteristics	1 ^{V*}	C
D _{us} ²	U	2	Value as tangible and intangible	1	S
G _x ²⁺	X	2+	Value as tangible and intangible	1 ^V	F
B _z ²³	Z	23	Value as tangible and intangible	(5-8) ^{N*}	F
C _z ²⁺	Z	2+	Value as tangible and intangible	12 ^{V*}	F
A _u ²⁺	U	2+	Value as <i>total package</i>	18	F
D _x ²⁺	X	2+	Value as <i>total package</i>	1 ^V	F
N _{zc} ¹²	Z	12	Value as <i>total package</i>	1 ^V	C
D _x ²⁺	X	2+	Value as <i>total solution</i>	1 ^V	F
A _x ²⁺	X	2+	Value as <i>total value</i>	2 ^{V*} , 2 ^{N*}	F
D _z ²⁺	X	2+	Value as <i>total value</i>	4, 6	F
K _x ¹²	X	12	Value as <i>total value</i>	2 ^{V*}	F
C _z ²⁺	Y	2+	Value as <i>total value</i>	2 ^{V*}	F
A _u ²⁺	U	2+	Value as <i>value for money</i>	18	F
A _w ¹	W	1	Value definition by shareholder	1 ^{V*}	F
B _w ²⁺	W	2+	Value definition by shareholder	1 ^{V*}	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value definition by shareholder	1 ^V	FS
C _y ²⁺	Y	2+	Value definition by shareholder	7 ^{N*}	F
C _z ²⁺	Z	2+	Value definition by shareholder	1 ^{V*}	F
D _{us} ²	U	2	Value definition by ultimate customer	8	S
A _v ¹	V	1	Value definition by ultimate customer	1 ^{V*}	F
C _v ³⁺	V	3+	Value definition by ultimate customer	1 ^V	F
C _y ²⁺	Y	2+	Value definition by ultimate customer	1 ^V	F

B _z ²³	Z	23	Value definition by ultimate customer	2 ^{V*}	F
D _z ²⁺	Z	2+	Value definition by ultimate customer	3 ^{V*}	F
I _y ³⁺	Y	3+	Value definitions differ	3 ^{N*}	F
J _{ys} ³	Y	3	Value definitions differ	1 ^V	S
B _u ²⁺	U	2+	Value definitions differ by context, by situation	1	F
J _x ³⁺	X	3+	Value definitions differ by context, by situation	2 ^{V*}	F
Q _x ¹²	X	12	Value definitions differ by context, by situation	5 ^V	F
J _{ys} ³	Y	3	Value definitions differ by context, by situation	1 ^V	S
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	Z	12	Value definitions differ by context, by situation	1 ^{V*}	S
A _u ²⁺	U	2+	Value definitions differ by function	16	F
B _u ²⁺	U	2+	Value definitions differ by function	5 ^V	F
D _x ²⁺	X	2+	Value definitions differ by function	4 ^V , 6 ^V , 10 ^{V*} , 11 ^{V*}	F
F _y ²⁺	Y	2+	Value definitions differ by function	(12-13) ^{V*}	F
F _y ²⁺	Y	2+	Value definitions differ by function	1 ^{V*}	F
J _{ys} ³	Y	3	Value definitions differ by function	1 ^{V*}	S
C _z ²⁺	Z	2+	Value definitions differ by function	12 ^{V*}	F
G _z ³⁺	Z	3+	Value definitions differ by function	3 ^{V*}	F
A _z ²⁺	U	2+	Value definitions differ by geography	22	F
A _z ³⁺	Z	3+	Value definitions differ by geography	7 ^{N*}	F
J _{zs} ¹	Z	2	Value definitions differ by geography	(7-9) ^{V*}	S
A _u ²⁺	U	2+	Value definitions differ by level	16	F
B _u ²⁺	U	2+	Value definitions differ by level	2 ^V	F
D _{us} ²	U	2	Value definitions differ by level	3 ^V	S
E _{us} ³	U	3	Value definitions differ by level	(4-5) ^V	S
D _x ²⁺	X	2+	Value definitions differ by level	4 ^V , 6 ^V , 10 ^{V*} , 11 ^{V*}	F
E _x ³⁺	X	3+	Value definitions differ by level	4 ^{V*}	F
Q _x ¹²	X	12	Value definitions differ by level	(8-9) ^{V*}	F
F _y ²⁺	Y	2+	Value definitions differ by level	(12-13) ^{V*}	F
J _{ys} ³	Y	3	Value definitions differ by level	1 ^{V*}	S
A _z ³⁺	Z	3+	Value definitions differ by level	9 ^{V*}	F
C _z ²⁺	Z	2+	Value definitions differ by level	11 ^{V*}	F
E _z ³⁺	Z	3+	Value definitions differ by level	6 ^{N*}	F
G _z ³⁺	Z	3+	Value definitions differ by level	3 ^{V*}	F
F _z ³⁺	Z	3+	Value definitions differ by product	6	F
K _{zs} ¹ , L _{zs} ² , M _{zs} ²	Z	12	Value definitions differ by product	1 ^{V*}	S
C _z ²⁺	Z	2+	Value definitions differ by role (buy-side vs. sell-side)	9 ^V	F
G _z ³⁺	Z	3+	Value definitions differ by role (buy-side vs. sell-side)	(5-7) ^{V*}	F
A _w ¹	W	1	Value definitions differ by time horizon, short-term vs. long-term	1 ^V	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value definitions differ by time horizon, short-term vs. long-term	6 ^{V*}	FS
H _{xs} ³	X	3	Value definitions differ by time horizon, short-term vs. long-term	1 ^{V*}	S
K _x ¹²	X	12	Value definitions differ by time horizon, short-term vs. long-term	10	F
C _y ²⁺	Y	2+	Value definitions differ by time horizon, short-term vs. long-term	13 ^V	F
A _z ²⁺	Z	3+	Value definitions differ by time horizon, short-term vs. long-term	(4-5) ^{V*}	F
C _w ³⁺ , C _{ws} ¹	W	13+	Value disciplines	1, 4 ^V	FS
B _x ¹	X	1	Value disciplines	4	F
A _{yc} ³	Y	3	Value disciplines	1 ^V	C
G _y ¹	Y	1	Value disciplines, migration	1 ^{V*}	F
A _{yc} ³	Y	3	Value disciplines, misalignment	(3-4) ^{V*}	C
F _y ²⁺	Y	2+	Value disciplines, misalignment	(9-11) ^{V*}	F
G _y ¹	Y	1	Value disciplines, misalignment	4 ^{V*}	F
B _x ¹	X	1	Value expectations differ	11 ^{V*}	F
M _x ³⁺	X	3+	Value expectations differ	1 ^{V*}	F
B _x ¹	X	1	Value expectations differ by context, by situation	11 ^{V*}	F
A _u ²⁺	U	2+	Value flows	7, 25, 26	F
A _u ²⁺	U	2+	Value management process	17	F
B _u ²⁺	U	2+	Value management process	14	F
A _w ¹	W	1	Value management process	1 ^V , 8 ^{V*}	F
A _v ¹	V	1	Value model, value conceptualization	18 ^{V*}	F
B _x ¹	X	1	Value model, value conceptualization	3	F
G _y ¹	Y	1	Value model, value conceptualization	3	F
A _u ²⁺	U	2+	Value model, value conceptualization, lack of value proposition	15, 15	F
A _w ¹	W	1	Value model, value configuration	1, 7 ^{V*}	F

Appendix C: Case study interview subject key

C_{XS}^3	X	3	Value model, value configuration	8^N	S
G_Y^1	Y	1	Value model, value configuration	4, 7	F
G_Y^1	Y	1	Value model, value implementation	7	F
B_U^{2+}	U	2+	Value of information sharing	11^J	F
C_U^{3+}	U	3+	Value of information sharing	2^N	F
D_Z^{2+}	Z	2+	Value of information sharing	7	F
C_{XS}^3	X	3	Value perceptions differ	8^Y	S
C_W^{3+}, C_{WS}^1	W	13+	Value propositions, multiple in the firm	2^Y	FS
A_W^1	W	1	Value protection versus value creation	4^Y	F
A_V^1	V	1	Value translation	18^{V*}	F
A_W^1	W	1	Value translation	$1^{V*}, 3^{V*}$	F
B_W^{2+}	W	2+	Value translation	1^{V*}	F
K_X^{12}	X	12	Value-added definition	3	F
C_U^{3+}	U	3+	Vendor assessment	9	F
A_Z^{3+}	Z	3+	Vendor assessment, Achieving Excellence	10^{V*}	F
J_{ZS}^2	Z	2	Vendor assessment, Achieving Excellence	5	S
$K_{ZS}^1, L_{ZS}^2, M_{ZS}^2$	Z	12	Vendor assessment, Achieving Excellence	$2^Y, 4^Y$	S
A_U^{2+}	U	2+	Vendor assessment, poor	9	F

APPENDIX D:
IPSERA 2003 CONFERENCE PAPER

**“On the importance of being valuable” –
Purchasing and Supply Management (PSM) and value stream alignment¹**

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Key words

Value, value chain, value stream, alignment

Summary

PSM's ability to increase value alignment across the value stream appears to be an important factor in determining whether a company is considered a best-in-class supply chain company. This paper uses a conceptually sound framework to explore the process companies use to align the different definitions of value to improve the flow of value to customers.

Overview of literature

The concept of *value* is key for much of the strategic literature. *Value* is the foundation of the *value chain*, i.e. the set of interconnected *value activities* occurring within the firm. *Value activities* are the physically and technologically distinct activities the firm performs. These are the building blocks by which the firm creates a product/service *valuable* to its buyers (Porter 1985). The combination of product and services benefits experienced by the customer is referred to as the firm's *value proposition* (Lanning and Michaels 1988; Lanning 1998).

One of the principal aims of competitive strategy is to increase the degree of strategic 'fit' (Porter 1996) between the firm's interlinked *value activities* and its chosen competitive advantage. Strategic fit is also known as 'echoing' (Lanning and Michaels 1988), 'alignment' (Rich and Hines 1997), 'fit[ness] for purpose' or 'appropriateness' (Cox 1998), and 'strategic resonance' (Brown, Lamming et al. 2000). Numerous authors describe the process of ordering the firm's internal and external activities, resources and actors to achieve such 'fit' (Drucker 1955; Granger 1964; Andrews 1971; Mintzberg 1987; Mintzberg and Quinn 1991).

Purchasing and supply management (PSM) participates in this ordering process by aligning its own value activities with the firm's chosen competitive strategy (Porter 1985) or *value discipline* (Treacy and Wiersema 1993). PSM conducts this process of alignment on two levels. Firstly, on an internal level across the firm's *value chain* (Adamson 1980; Spekman 1981; Browning, Zabriskie et al. 1983; Freeman and Cavinato 1990; Pearson and Gritzmacher 1990; Cammish and Keough 1991; Watts, Kim et al. 1992; Fitzpatrick 1996; Lysons 1996; Baily, Farmer et al. 1998). Secondly, on an external level across supplier and customer value chains, i.e. the *value system* (Porter 1985; Lamming 1993; Harland 1996; Lamming 1996; Hines and Rich 1997; Hines 1997; Rich and Hines 1997). Recognizing PSM's important role in this ordering process, several authors are prefixing the terms 'purchasing' and 'supply management'

with the word ‘*value*’, e.g., *value-based purchasing* (Dumond 1994; Telgen and Sitar 2001); *value-focused supply management* (Raedels 1994); *value-driven purchasing* (Leenders and Flynn 1995); and *value-added purchasing* (Rajagopal and Bernard 1994; Scheuing 1998).

Hines, Lamming et al. (2000) roll up these three concepts – the centrality of value, the process of alignment, and PSM’s strategic role – into a formal approach they label *value stream management*. Building on the value analysis/value engineering, business process re-engineering, lean manufacturing, lean supply and quality literatures, the authors assert that *value* should *flow* uninterrupted across the functions within a *value stream* so that the ultimate customer receives what he or she considers valuable. To increase the flow of value, a firm must concentrate on *value-adding* (VA) activities and eliminate non-value-adding (NVA) activities in its value stream. Doing so presumes (1) a mutually agreed-upon competitive strategy / value discipline based upon an accepted view of what the ultimate customer values and (2) the alignment of each value chain member’s *value activities* with the accepted *value discipline*. The academic literature both supports and contests these presumptions.

Campbell and Wilson (1996) assert that the network captain of the value system should impose the overriding “value concept” to guide and coordinate the efforts of different autonomous firms in the supply network. Campbell and Wilson (1996:142) label this “joint value objective(s)” the “*a priori* value vision” and use Treacy and Wiersema (1993)’s three value disciplines to describe value. The authors argue that supply network companies should align their strategies with the “joint value objective(s)”.

Hines (1997) supports Campbell and Wilson’s concept of ‘joint value objective(s)’; he asserts the need for “Full Zone Alignment” of inter-company co-ordinating mechanisms to ensure value stream flows. Hines (1997) uses Mintzberg (1979)’s six-part organisational framework – strategic apex, middle line, operating core, techno-structure, support staff, and ideology – to measure the degree of alignment between networking companies achieved by eight different networking models/theories. These models/theories include the interaction theory/network approach: (Hakansson 1982; Mattson 1984); flexible specialization: (Piore and Sabel 1984); strategic networks: (Jarillo 1988); federal networks/republics: (Howard 1990); the virtual corporation: (Davidow and Malone 1992); lean supply: (Lamming 1993); partnership sourcing: (Macbeth and Ferguson 1992); and network sourcing: (Hines 1994). Hines (1997) concludes that most models align the strategic apexes of companies so that strategic deployment from customer to supplier may be achieved. See Table 1.

The Balanced Scorecard, advanced by Kaplan and Norton (1992), is a performance management tool that aims to help an organisation explicitly prioritise its objectives and facilitates alignment against this hierarchy of objectives. Brewer and Speh (2000, 2001) assert that the Balanced Scorecard may be used by firms to achieve strategic alignment across their respective value chains. PSM confronts several challenges, however, attempting to effect such alignment. These challenges stem principally from difficulty trying to reduce the myriad of functional objectives within the company to a consistent corporate objective (Farmer 1972; Fearon 1973; King 1973; Watts, Kim et al. 1992). Despite the multiple and possibly conflicting objectives of ‘the various material functions’ within the firm, Fearon (1973:41) notes that the “successful solution will require [PSM] balancing of the opposing objectives to achieve optimum or greatest

total results for the organization". King (1973:73) supports Fearon (1973) and notes that 'There is no simple method for determining what purchasing decisions are optimal. The decision which best serves one set of objectives usually will not be appropriate for some other set of aims'. King (1973) suggests that multiple conflicting views of the term 'right' may be the root of PSM's difficulties. Watts, Kim et al. (1992) support King (1973); they explicitly recognise the challenge PSM faces in defining the term 'right'.

Yet if PSM faces a problem defining the term 'right', value-based purchasing / value-focused supply management / value-driven purchasing / value-added purchasing undoubtedly faces a similar problem defining the term 'value'. There are after all many alternative definitions of value advanced by the academic literature². Conflicting definitions of value are likely to result as value chain stakeholders select from these multiple definitions – increasing the likelihood of fundamental blockages / interruptions occurring in value stream flows.

Fawcett and Magam (2001:38) support this hypothesis noting that '*different value structures* make collaboration difficult as each firm may struggle with *valuing strategic directions and goals* that are different from their own' [emphasis added]. Cousins, Swan et al. (2002) label such blockages '*value gaps*'. Cousins, Swan et al. (2002) assert that PSM will encounter considerable difficulty managing *value-based* supply strategies, since it is unlikely that a firm's supply management function can use a generic definition of value to satisfy both the customer and supplier orientations of the firm. In other words, one would expect to find value gaps in a firm's value stream vis-à-vis its PSM function. Ellram (2002) supports this assertion noting that goal and objective alignment has yet to be achieved across the buy and sell-sides of five firm triads she studies.

In summary, the literature posits that firms should concentrate on *value-adding activities* in their respective value streams and eliminate all non-value-adding activities where possible in order to increase the flow of value. Doing so presumes (1) a mutually agreed-upon competitive strategy / value discipline based upon an accepted view of what the ultimate customer values and (2) the alignment of each value chain member's *value activities* with the accepted *value discipline*. Yet the problem of defining the terms 'right' and 'value' as outlined in the literature suggests that presumption one will be violated. PSM's inability to balance conflicting definitions of value as outlined in the literature suggests that presumption two will be violated.

These violations point to conceptual differences and/or conflicts in PSM theory. Since value is key to competitive strategy, these would be critical differences. The reader may understandably ask: What have been the experiences of firms' PSM organisations in using common definitions of value across their respective value streams? In other words, what can we learn from practice?

Research model and research proposition

This paper uses Cousins, Swan et al. (2002)'s conceptual model which describes how value optimally flows through and between organisations. Their Value Gaps Model (Figure 1) depicts three inter-related value sub-processes. Value conceptualisation concerns the (re) definition of the firm's value proposition to customers; this sub-process is "owned" by the managing director / chief executive of the firm. Value

configuration concerns the translation of the value proposition into a series of goals and objectives across the firm; this sub-process is “owned” by the functional heads of the firm. Functional heads are each responsible for translating the firm’s value proposition into a set of aligned goals and objectives within each of their respective functions. Value implementation concerns the tangible manifestation of the firm’s value proposition, i.e. the creation and delivery of the firm’s products and services. Whilst this sub-process is “owned” by everyone in the firm, it is realised by front-line employees.

In terms of the Value Gaps Model, Fawcett and Magam (2001) suggest the presence of GAP5 in most value streams and the absence of GAP5 only ‘among the very best supply chain companies’. Since the triad-spanning GAP5 is the product of external GAPS 1 and 4 and internal GAPS 2 and 3, Fawcett and Magam (2001) suggest the presence of GAPS1 – 4 in most companies’ respective value streams. In contrast they suggest an absence of GAPS1 – 4 in ‘the very best supply chain companies’, because these companies have achieved a state of strategic fit or alignment across their respective value streams.

Cousins, Swan et al. (2002) focussed on internal value gaps, i.e. GAPS 2 and 3, in the value streams they studied. This paper is concerned with the external value gaps that arise between customers and suppliers in a given firm triad (the customer firm, the focal firm and the supplier firm). These external value gaps appear twice in Cousins, Swan et al. (2002)’s model, i.e. at GAP 1 and GAP 4 in Figure 2. Accordingly this paper aims to address the following research proposition:

As value is interpreted across the value stream its meaning changes. This causes a misalignment between an individual’s value activities and the value chain’s / value system’s strategic objectives resulting in interruptions / blockages of the flow of value across the value stream. Among the very best supply chain companies, however, these interruptions and blockages do not occur due to the alignment of value definitions. In these firms value GAPS do not exist at the dyad level between immediate buyers and sellers, i.e., GAP 1 and GAP 4 in Figure 2.

Research approach

Large-sample surveys, the research method employed by Cousins, Swan et al. (2002), are not conducive to gathering “matched” data across organisations, i.e. across firm triads. For this reason, this paper is based upon an examination of external value gaps in six value streams: three firm triads in the UK and three in the US. Case study companies were selected based on their use of leading-edge supply management techniques and practices as indicated by the following proxies: (1) public recognition by professional bodies (e.g., CIPS³ or the ISM⁴); (2) use of a structured strategic sourcing process (oftentimes implemented with the assistance of a large consultancy); (3) publication of ‘best practices’; (4) benchmarks demonstrating leadership positions in supply management; and (5) membership in select supply-related associations (e.g., NISCI⁵). Five of the six cases met at least one of these criteria (Table 2). One company was selected strictly as a convenience sample. Overall, a mix of industries was represented (Table 3).

Companies agreed to provide access to multiple employees responsible for value conceptualisation (Managing Director or other chief executive), value configuration

(Head of PSM), and value implementation (front-line purchasing staff). In addition, companies agreed to provide access to representatives from customer and supplier firms. This author requested a one hour session with each interviewee. Sixty individuals were interviewed resulting in over one hundred hours of interviews. To receive their permission to audio-tape and transcribe sessions, several firms requested that this author sign confidentiality agreements. Case companies and participant names are therefore not disclosed in this paper.

This author used a semi-structured interview protocol to explore key aspects of the conceptual model. The author used open coding to classify case interview comments based upon a set of pertinent key words and phrases related to the conceptual model. This author scanned the resulting case interview subject index to retrieve pertinent comments corresponding to GAPS 1 and 4. This author judged whether each comment provided evidence confirming, suggesting or refuting the presence of that particular value gap in the case companies. Table 4 summarises this evidence.

Discussion of research findings

This researcher followed Maxwell (1996)'s suggestions for conducting qualitative research. Maxwell (1996) asserts that qualitative research is well suited to answering questions about meaning, context and process. Accordingly, this author was particularly interested in understanding:

- (1) The meaning individuals ascribe to the term value (i.e., the individual's personal interpretation or definition of value) as it relates to their day-to-day value activities;
- (2) The context in which individuals act (i.e. the individual's understanding of their value contribution vis-à-vis the overall value stream);
- (3) The process by which value alignment (Figure 2) occurs (i.e., the alignment of the different groups' and companies' definitions of value across the value stream).

Value GAPS 1 and 4 were observed in most case study companies' value streams (Table 4). An informal poll of interviewees revealed that 5 to 40% of daily transactions between suppliers and customers were believed to suffer from 'total misalignment' (in contrast to 'total alignment and 'a mixture of alignment/misalignment') of the definitions of value used by counter-parties. Although not intended to be statistically rigorous, this poll included estimates from key decision makers, e.g. a Director of Corporate Purchasing (Company X), a Vice President and General Sales Manager (Company X supplier), a Strategic Account Manager (Company Y supplier), and a Vice President and Chief Procurement Officer (Company Z customer). To shed light on actual company experiences of external value gaps occurring within their value streams, this author examined case study transcripts based upon each of the above three types of inquiry/questions.

Meaning: With one rare exception, the sixty interviewees (who included a President, a Chief Financial Officer, a Chief Procurement Officer, two Chief Information Officers, several Directors of PSM/SCM, multiple PSM project managers, and many buyers) were able to describe what they did (i.e. their value activities) and their interpretation of the value of those activities. The rare exception was a Project Manager at Company V who, when asked how he would define value, replied 'I haven't got the faintest idea!' He stated that performance, time and cost (PTC) – the three objectives of his firm's PSM group – were 'standards for value' and appeared tacitly to endorse PTC as his

own performance metrics. However, he could not describe how PTC related to his position's activities.

When describing the value of their respective value activities, interviewees commonly referenced the performance measures against which they were annually evaluated and compensated. This confirmed the old adage repeated by several interviewees: 'Tell me what gets measured and I'll tell you what gets done'. Although performance measures cited included share price, purchase price, cost savings, service level track records, and transactional metrics, functional specialisation led each individual to focus on a narrower set of performance metrics to achieve specific tangible outcomes. This was especially evident at Company X whose PSM function was divided into two parts: one which negotiated supplier contracts and the other which managed supplier relationships. Both sides were motivated by quantitative measures; however, these measures encouraged antagonistic behaviour across PSM. Contract negotiators were evaluated on contract price reductions achieved; relationship managers, on service level targets met. Both professed having the best interests of the firm at heart even though their combined activities were at times not mutually reinforcing. A Supplier Relationship Manager at Company X estimated that his performance metrics were out of alignment with those of the contract negotiator '70% of the time'. 'I'd liken it to they [contract negotiators] go out and beat them [suppliers] up during negotiations and we come in behind them and hold their [the supplier's] hand, take care of them afterwards and make them well'.

Other interviewees noted the limitations of their existing performance measures in terms of accurately expressing the value of their respective value activities. A supplier of Company V noted that 'there is a hard side to value and a soft side. The hard side includes measured deliverables usually agreed in contract. ... There are softer aspects that certainly add value but are not so easily measured, for example, relationships. ... Value is quite a difficult thing to define; it incorporates a number of hard and soft issues'. When asked how value is measured, a buyer of indirect goods at Company Z observed: 'It depends on whether we're talking about direct or indirect goods. Direct has so many more objectives measures and metrics than what we have on the indirect side. On the indirect side there is a focus on capturing and measuring what we can. But there is more subjectivity on service performance which makes measuring indirects harder'. The Head of PSM at Company Z noted the difficulty of monetizing the value of these softer performance issues. 'There must be some value there somehow but since I can't look at previous price paid how do I look at it?' He noted that 'our friends in finance ... who like their world to be very black and white' resist such attempts. This was borne out when this researcher asked a Senior Executive of Business Strategy at Company Z who rose through the ranks of finance to describe the issues that needed to be overcome to put a value on intangibles. The executive countered: 'I'm not convinced we need to put a value on them, because of the difficulty of getting an accurate assessment of the worth of an intangible'.

Financial definitions of value are increasingly key to company attempts to pro-actively manage value. For example Company W had recently moved to a *value-based management* (VBM) approach. A Senior Executive described VBM as 'determining whether or not something enhances, destroys or protects *shareholder value*. ... Ultimately the view [of Company W] is to look after shareholder value'. Yet Company W's Director of PSM noted the difficulty expressing the value of PSM's

activities in terms of its contribution to shareholder value: 'My understanding of how Company W defines value is actually optimum delivery to the shareholder. Which means high share prices. Which means that people all do their best. ... How does that translate for me and what I do? It's actually quite difficult to measure'. A former supplier development consultant, hired by Company W to help implement VBM in PSM and now working on the front-line, also noted the difficulties: 'Company W is a huge organisation that has suddenly started using the value word. They probably just about equate it to shareholder value, but they run into sticky areas in terms of their knowledge and understanding. ... I came in and saw the words "What we want to do is create value out of supplier relationships". There could be multiple definitions of what that meant'. Interestingly the two alternative definitions of value – low cost and innovation – offered by this interviewee as possible meanings represent two of Treacy and Wiersema (1993)'s value disciplines which describe the overall value stream (Brewer and Speh 2000, 2001).

Context: The individual's value activities must be examined in the context of the overall value stream in order to appraise their value. Recall that increasing *value-adding* (VA) *activities* presumes a mutually agreed-upon *value discipline* based upon an accepted view of what the ultimate customer values. Case studies indicated that this presumption is often violated in practice.

Buyers at most firms struggled to define what value meant at the group level (i.e., PSM) and struggled even more to define what value meant at the firm level (i.e. the firm's value proposition). For example, buyers at Company U (the convenience sample) had considerable difficulty defining value in terms of PSM's combined activities. When this author asked the Head of PSM at Company U 'How do you communicate value within your group and do you have performance measures that you use to reinforce those things that add value?', the interviewee responded: '*We don't actually measure value as such*. Lots of subsidiary measures that if you "put them all together and wrap them up" could form a part of value. To back up the value we add, how we measure our self, how we perform is more of a performance measure of ourselves'. Unfortunately the interviewee could not describe which performance measures at the individual level were most important at the group level. The interviewee also could not explain how to synthesize these individual performance measures so that they would express PSM's overall value contribution to Company U's value proposition.

Lack of synthesis of value definitions appeared to be one of the two principal reasons the front-line was unable to understand properly its contribution to the group and the firm. Front-line individuals sometimes had only a vague notion of their relative contribution at the broader level. For example, when this researcher asked a PSM Officer at Company U to describe her contribution, she noted generally that she had 'a small part to play in all of it if you break it down. I think it's just making sure you do your things to your best. Make sure you do your job properly'. The other reason was basic ignorance of the firm's value proposition. When asked whether his buyers understood his company's value position, the Head of PSM at Company U responded that it did not have a formal value proposition but that it would be beneficial. One of his contract negotiators concurred; he noted that 'The company has a mission statement which is some sort of fluff to give the best delivery and service to the customer to make the company successful. Company U's definition of value is a bit blurred in terms of

the concept of value. ... The value we give to the customer is different to the actual objective we aim for'.

Yet the Head of PSM at Company U nevertheless asserted that one needed to understand what one's contribution was to the overall value stream. The interviewee described value from the customer's perspective: 'It is essential to help define what the value stream will be, then get individual "buy in" from each of the functions so they fully understand what their contribution will be to that value stream. They will then know what the value is to the various customers. At the other end of the spectrum, at the procurement end, they know their contribution to that value, and they share that contribution with the supply base.... It is essential that your supply base is aligned with your value objectives otherwise you are never going to achieve the desired level of value'. When asked whether her personal performance objectives 'lined up with' PSM group measures, a PSM Officer at Company U replied 'No. Mine are more specific, theirs are very global'. Recall that increasing *value-adding (VA) activities* presumes alignment of each value chain member's *value activities* with the accepted *value discipline*. It is difficult to see how one might increase value activities if one's performance metrics are not properly connected or aligned at the firm level much less at the group level. This author now discusses that process.

Process: By definition effective value streams require close alignment of value activities and value definitions. The Director of Purchasing at Company U described the value stream as 'a common understanding of what the deliverables are, what value is actually shared by every member in that value stream. That is from sub-suppliers to my suppliers, to me, to the customer. We all understand what our goals are in terms of what we are trying to achieve, when we are trying to achieve it, and that we all actually co-operate with each other. We have an agreed mode of operandum. ... We all understand what the outcome is and we all share a common goal'.

Value alignment across the value stream was perceived as important and its need recognized by multiple case interviewees. The Head of PSM of Company W stressed the need for alignment with his company's customers. 'We should be joined to the customers. SBUs and all of those people we do projects for are our customers. The value that we should be measured upon should be the value that is defined by their strategies and we should be aligned with that. To understand how they measure that and what is value to them'. The Head of PSM at Company Y concurred; he noted 'I think we're all ultimately here to bring value to the customer – Company Y's customer. In the concept of supply chain management, you all need to share that same understanding of what value we're trying to achieve. If the value is to serve the customer – to bring more value to the customer of Company Y – you have to ask yourself what you can do to support that'.

Case study experiences suggest that value alignment is elusive. The experiences of case companies point to considerable difficulty in aligning value definitions. For example, when asked how Company U's suppliers perceive PSM and what Company U wanted from them, the Contract Negotiator replied 'They probably don't know what we want. ... I think the way we measure them, communicate our values to them is somewhat unclear. We don't sit down at the beginning of the program and say, "Well actually what is important to us is" [Instead] we sit down with a contract that contains a lot of legal niceties'. An important supplier of Company V was not aware of

Company V's value proposition. When asked how well Company X, a company whose Senior Executives emphasized their use of the Balanced Scorecard, used consistent definitions of value, a Chief Information Officer graded the organisation a 'D' on a four part scale (A [superior], B [very good], C [good but average] or D [poor]). When asked whether his company used too many metrics, the Head of Supply Chain Management at Company Y replied bluntly: 'They don't line up'.

Whilst recognizing the need for value alignment, several case interviewees provided multiple potential explanations of the cause(s) of such misalignment. These included organisational barriers, lack of metrics, and a secretive culture. The Contract Negotiator at Company U recognized that there were considerable organisational obstacles within his own company. 'I think that bringing all parties involved together at the start would avoid a lot of non value adding activities. It would remove a lot of the cost of communication and a lot of the misinterpretation of what people really need -- a lot of the overhead of a large program. In terms of that happening, there are lots and lots of barriers that have to be overcome'. Company X's CFO struggled to recall where supplier-related metrics first entered the cascade of Balanced Scorecards used by his company. 'Where would you pick up suppliers? [15-second pause] I don't even know if you'd pick up supplier [related measures] at the market centre level in truth [i.e. the 4th or 5th levels from the apex]'. Company Z – a company lauded in the business press for its enlightened views of supply chain management and the triad exhibiting the greatest degree of value alignment (see Table 4) – once suffered from a culture discouraging information sharing. The Head of Supply Chain Management at Company Z recounted how one senior executive hesitated to show him the firm's strategic plan. 'When I first came here, in the first week I went to my boss across the hall and asked for the company's strategic plan. And he obviously was very uncomfortable. I pressed further and said, "How can I lead my group effectively if I don't know what the company's plan is?" And he said, "We're a very traditional company and until a few years ago we never had a strategic plan. But now we do. But I can't give it to you because it's a secret. If you sit in my office with the door closed and read it, I guess that would be OK so long as you don't tell anybody I showed it to you!" I found that unacceptable behaviour, because if you have a strategic plan and the people who accomplish that plan have no idea what the plan is, then it's less likely to happen'.

Two case interviewees, however, questioned whether achieving value alignment could ever be achieved. A Supplier of Company U noted that value means different things depending upon where one sits within the overall value stream. "Value means different things depending on who you are and your role within the enterprise supply chain. ... In my role I see what we do in adding value as ultimately enabling our customers like Company U to become more competitive and earn more business. However, at the front line level, if we look at some of the buyers my firm have and their ability to add value, they would probably only see themselves adding value to my firm. They won't actually see themselves as adding value to our customers, like Company U or anybody else. It all depends on who you are within the supply chain and the level within your organisation, as to where you see value being added." The former consultant at Company W who was implementing VBM in PSM claimed that PSM's definition of value should remain forever "open ended". 'In a more traditional procurement type environment, we create more value by driving down the cost, and therefore potentially reducing your cost base, and gaining larger margins. However, we could look beyond

that as one aspect of value and say that another aspect of value is unlocking innovation so that potentially suppliers can look into an organisation to improve organisational efficiency/effectiveness by actually realising some value. That was something that confused the picture of what value really meant. What I have done as part of the methodology that I have developed is to leave the question of value open with as broad definition as possible. So if we were dealing with value through operational efficiency then that [the methodology] was fine. But we also dealt with value as the identification of world changing ideas and everything between the two [traditional approach and world-changing ideas]'. Unfortunately leaving the definition of value forever "open ended" makes PSM's job even more difficult than it already is.

Conclusions and managerial implications

In order to conclude that a value stream was without external value gaps, this author searched for evidence refuting the presence of Value GAP1 and GAP4 in the value streams he studied. Based upon this criterion, this author did not conclude that any of the six case companies achieved complete alignment of value definitions across their respective value streams. The research findings did demonstrate that Company Z, a company recognized in the business press as a leader of PSM best practices, has proven more successful avoiding external value gaps than Companies U, V, X and Y. The research findings therefore suggest that better alignment of value definitions occurs across the value streams of the very best supply chain companies.

In determining whether a company is considered a best-in-class supply chain company, PSM's ability to increase value alignment across the value stream appears to be an important factor. This raises several questions: Who is the ultimate customer, and is it the same for all value stream players? How far down the value stream should one look to determine the ultimate customer's definitions of value? How should one measure the alignment of value definitions across a company's value chain? Is anything less than total alignment desired? Answers to these questions are not immediately forthcoming in the PSM literature. Unfortunately, when it comes to the concept of value, the PSM literature suffers from a jumble of disconnected value definitions and theories.

Several PSM authors, supported by case study interviewees, observed that 'PSM has quite a fine line to walk'. This author posits that failing to address robustly value questions will make PSM's already tough job even harder. This paper uses a conceptually sound framework to explore the above value questions and to assist PSM practitioners. It is this author's hope that a better understanding of value will result and broaden the path that PSM practitioners must walk in the future.

End Notes

¹ The author would like to thank the anonymous reviewers for their constructive comments and suggestions.

² The author conducted an extensive review of the literature as part of his PhD thesis *An Empirical Framework for Evaluating, Implementing and Managing a Value-Based Supply Chain Strategy* at the University of Bath (March 2003).

³ The Chartered Institute of Purchasing and Supply. See www.cips.org.

⁴ Institute for Supply Management. See www.ism.ws.

⁵ National Initiative for Supply Chain Integration. See www.nisci.org.

Tables

Table 1: Inter-company co-ordination by networking model/theory Source: Hines (1997)						
Model	Practical alignment between companies					
	Strategic apex	Middle line	Operating core	Techno-structure	Support staff	Ideology
Interaction theory / network approach	Yes	Yes	No	Yes	No	No
Flexible specialisation	Yes	No	Yes	No	No	Yes
Strategic networks	Yes	No	Yes	Yes	Yes	Yes
Republics/federal networks	Possibly	Yes	No	Yes	No	No
Virtual corporation	Yes	Yes	No	Yes	No	Possibly
Lean supply	Yes	Yes	Yes	Yes	Yes	No
Partnership sourcing	Rarely	Yes	No	No	No	No
Network sourcing	Yes	Yes	Yes	Yes	Yes	Yes

Table 2: Selection criteria for selected case companies						
Selection criteria	U	V	W	X	Y	Z
(a) Public recognition by professional bodies (e.g., CIPS or the NAPM/ISM)						*
(b) Use of a structured strategic sourcing process (oftentimes implemented with the assistance of a large consultancy)		*	*		*	*
(c) Publication of 'best practices'						*
(d) Benchmarks demonstrating their leadership position in PSM				*		*
(e) Membership in select supply-related associations (e.g., NISCI)				*		*

Table 3: Case study company industries			
Label	Customers	Focal organisation	Suppliers
U	• Gov't Ministry	• Defence contractor	• Advanced technology subcontractor
V	• Armed Forces	• Gov't Ministry	• Avionics
W	• Internal business Units	• Global financial services (retail and institutional)	• Management consultancy
X	• Internal business Units	• Domestic financial services (retail)	• Information technology • Food services • Personal computer installation / support / service • Real estate facilities management
Y	• Construction contractors	• Building materials	• Manufacturing and production monitoring systems

Table 3: Case study company industries			
	<ul style="list-style-type: none"> Independent distributors Subsidiary distributor Major DIY retailer 		<ul style="list-style-type: none"> Packaging
Z	<ul style="list-style-type: none"> Agricultural Environmental services 	<ul style="list-style-type: none"> Heavy equipment manufacturer 	<ul style="list-style-type: none"> MRO Print

Table 4: Case study evidence						
External value gap	Company					
	U	V	W	X	Y	Z
GAP 1	*	--	*	+	+	O
GAP 4	+	+	*	+	O	--

Legend:

- * Insufficient evidence to draw any conclusions about external value gap
- +
- Evidence demonstrating absence of external value gap
- O Mixed/conflicting evidence of presence/absence of external value gap

Figures

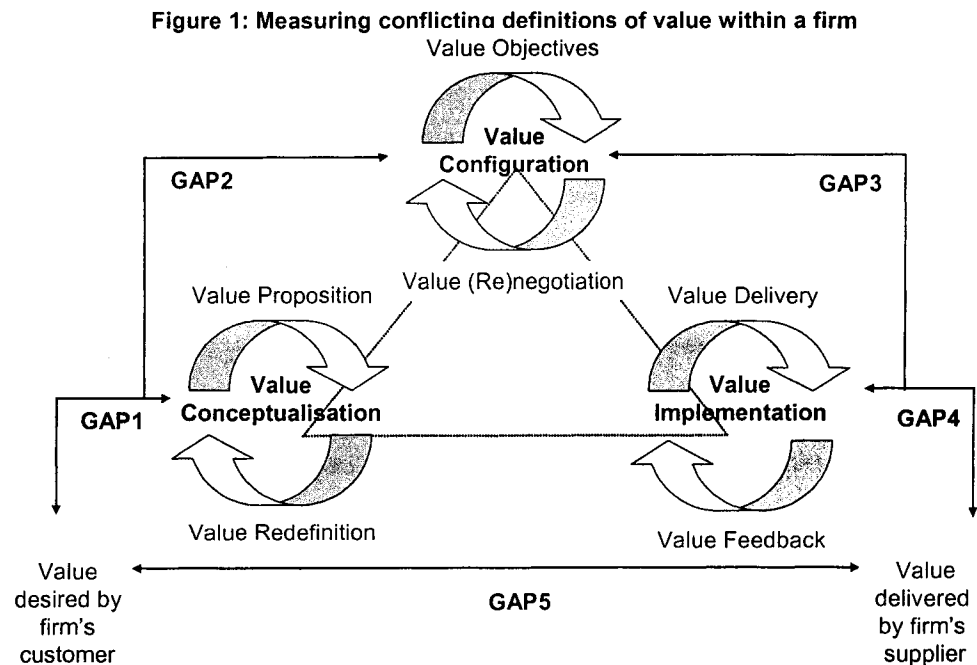
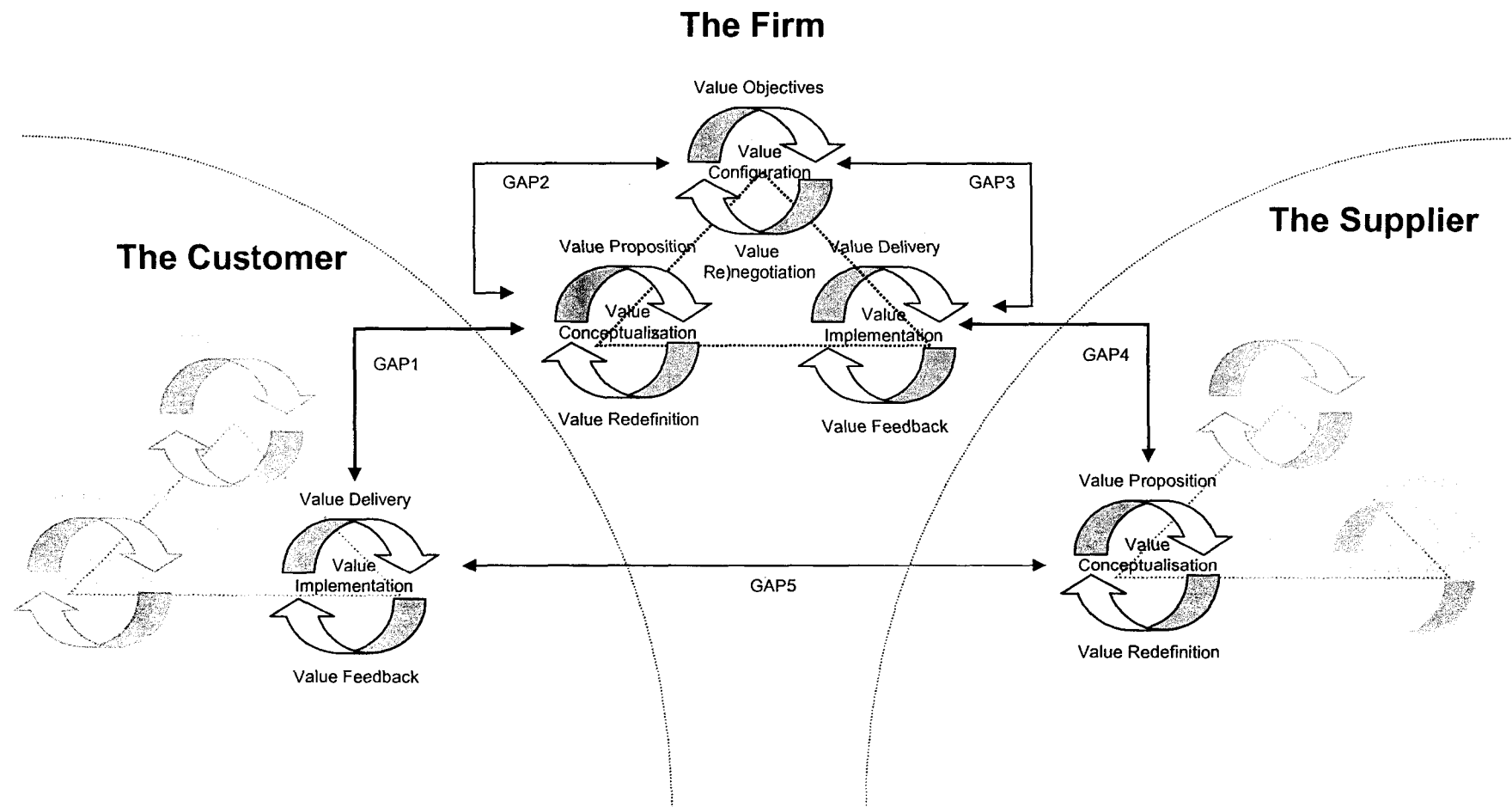


Figure 2: Measuring conflicting definitions of value across the value chain



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